

LEATH & ROSS'S HOMOEOPATHIC PHARMACIES,

9 VERE STREET, W.,
and 5 ST. PAUL'S CHURCHYARD, E.C.,
LONDON.

Those desirous of
becoming Agents
are requested

ESTABLISHED 1835.

To apply at

9 VERE STREET,
Our Agents'
GLASS-TOP SHOW CASE,
As it appears open.
Wholesale Department.



TRADE PRICE £4 4s.
CONTENTS REALISE £7 1s. 6d.

THE NEW FAMILY CHEST
Contains 28 Bottles of the most useful Homœopathic Medicines, a Guide, giving the treatment of all common complaints, the uses of the Medicines, proper doses, &c. In the lid are the two externals most in use, viz., Arnica and Calendula. It can be fitted to hold either Pilules or Tinctures.

Price 25/-; trade price, 16/8.

LEATH & ROSS'S WHOLESALE PRICE LIST OF MEDICINES, ETC., PUT UP READY FOR SALE.

PILULES—Medicated any strength up to the 30th potency.

Sixpenny Tubes, 3/- per dozen.

Ninepenny " 4/6 "

Shilling " 6/- "

TINCTURES—Any strength up to the 30th potency.

Sixpenny Bottles, 3/- per dozen.

Ninepenny " 4/6 "

Shilling " 6/- "

PILULES—Medicated to any strength up to the 30th potency

Sixpenny Bottles, 3/- per dozen.

Ninepenny " 4/6 "

Shilling " 6/- "

TRITURATIONS—

Sixpenny Bottles, 4/- per dozen.

Ninepenny " 4/6 "

Shilling " 6/- "

EXPORT ORDERS ARE DESPATCHED WITH THE GREATEST PROMPTITUDE.
Special quotations for large quantities.

LEATH & ROSS'S PROPRIETARY ARTICLES.

FREE NE, 1/14, 2/9, 4/6 ...	... 9/6, 22/, 36/.	NEURALINE, 1/14, 2/9, 4/6 ...	... 9/6, 22/, 36/.
ILLI-BIN LINIMENT, 1/14, 2/9 ...	... 9/6, 22/.	GLYKALINE, 1/14, 2/9, 4/6 ..	... 9/6, 22/, 36/.
HOSP. MUR. QUININE, or PICK-ME-UP TINCTURE, 1/14, 2/9 ...	... 9/6, 22/.	ODONTALGIC ESSENCE, 1/14, 2/9, 4/6 ..	... 9/6, 22/, 36/.
IRON, 1/, 1/6, 2/6	8/-, 12/, 20/-.	OZONIZED OIL, 1/, 1/6, 2/6	... 8/-, 12/, 20/-.
UTERINE TOOTH TINCTURE, 1/, 1/6, 2/6	8/-, 12/, 20/-.	HAIR RESTORER, 1/6, 2/6, 4/6	... 12/, 20/, 36/-.

Agents' Counter Cases, £2/2/0, £3/3/0, £4/4/0, £6/6/0, and £10/10/0.

LEATH & ROSS, LONDON.

**SEVEN HIGHEST AWARDS—Philadelphia, 1876; Paris, 878;
International Medical Exhibition, London, 1881.**

"Greatly superior to the preparations in common use."—THE LANET.

VASELINE SOAPS

"ALL OTHER SOAPS ARE MADE FROM ANIMAL FATS, OFTEN RACID,
SOMETIMES DISEASED, AND ALWAYS COARSE."

Three Styles.	VASELINE, SUPERFINE TOILET,	One size, 1s. per tablet.
	VASELINE, FAMILY TOILET,	Two sizes, 6d. and 9d. per tablet.
	VASELINE TAR,	Two sizes, 6d. and 9d. per tablet.

The "VASELINE" TAR SOAP is the pleasantest and most effective combination of Tar for all Skin Diseases and Irritations, and a delightful Toilet article. The only genuine Tar Soap made.

The use of Lard, &c., as a basis for all ointments is now discarded by Medical Men, and "VASELINE" only is used for the purpose. "VASELINE," as is well known, possesses the most powerful inherent healing properties, is the best Emollient known to science, and will never become rancid: it is therefore the natural and only true basis for Soaps.

We beg to call attention to the following Preparations, at Greatly Reduced Prices:
FOR MEDICINAL AND PHARMACEUTICAL USE.

REGISTERED TRADE MARKS.

"VASELINE" (PURE).

In 1-oz., 2-oz., and 5-oz. bottles, and in $\frac{1}{2}$ -lb., 1-lb., and 5-lb. tins.

"CAMPHORATED VASELINE."

In 2-oz. and 4-oz. bottles.

"CARBOLATED VASELINE."

Ditto, ditto, and in 1-lb. tins.

"WHITE VASELINE."

In 1-lb. and 5-lb. tins.

"VASELINE CONFECTIONS."

In fancy tin box, one size, 1s. each.

VETERINARY VASELINE.

In $\frac{1}{2}$ -lb., 1-lb., and 5-lb. tins.

POMADE VASELINE.

FOR TOILET USE.

In 2-oz and 5-oz. bottles. Also white in colour glass stoppered bottles.

VASELINE HAIR TONIC.

One size, price 4s. each.

VASELINE COLD CREAM.

In glass pots, 9d. and 2s.

VASELINE CAMPHOR ICE.

In fancy tin box, one size, 6d. each.

VASELINE TOILET SOAP.

(Family.) 6d. and 9d. tablets. Boxes of 6 and 3 tablets.

VASELINE TAR SOAP.

Ditto, ditto, ditto.

VASELINE TOILET SOAP.

(Superfine.) 1s. tablets, in box of 3 tablets.

SUNDRY PREPARATIONS.

VASELINE ANTI-CORROSION PASTE.

One size, tin box, 6d. each.

VASELINE BOOT PASTE.

Ditto, ditto, ditto.

VASELINE HARNESS PASTE.

In 1-lb. tins, 1s. 6d.

VASELINE AXLE PASTE.

In 1-lb. tins, 1s. 6d.

NOTICE.—The above only Genuine in our Packages. The BOTTLED GOODS are put up in Cardboard boxes.

MANUFACTURED ONLY BY THE

CHESEBROUGH MANUFACTURING CO.

(NEW YORK),

41 HOLBORN VIADUCT, LONDON, E.C.

Important Notice to the Wholesale Trade.

P. Hart & Son,

Sponge Importers,

55^a, Houndsditch,

and at London,
Greece and Turkey.

We, buying our Sponges direct from the Fishermen, are enabled to offer the finest selection of Honeycomb and Turkey Cups and Solids it is possible to obtain, at prices lower than any other house in the trade.

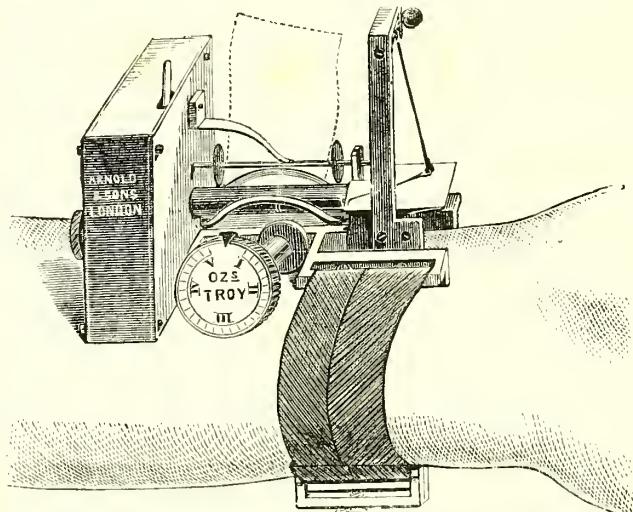
The Sponges we send out are entirely free from Sand "but not washed."

Goods ordered by post can be returned if not approved of.

Two thousand cases to select from.

ARNOLD & SONS' NEW POCKET SPHYGMOMOGRAPHE.

As suggested by Dr. DUDGEON.—(Vide "Medical Times and Gazette," July 2nd, 1881).



THE ADVANTAGES OF THIS INSTRUMENT ARE :—
 1. It magnifies the movements of the artery in a uniform degree—viz., 50 times.
 2. The pressure of the spring can be regulated from 1 to 5 ounces (30 to 150 grammes).
 3. It requires no wrist-rest, and may be used with equal facility whether the patient is standing, sitting, or lying.
 4. With it a tracing of the pulse can be made almost as quickly as the pulse can be felt with the finger.
 5. Its sensitiveness is so great that it records the slightest deviation in form or character of every beat.
 6. Its construction is so simple that if accidentally broken any surgical instrument maker can repair it.
 7. It is so small (2½ by 2 inches) and weighty (4 oz.) that it can easily be carried in the pocket.
 8. It is only one-third of the price of the onerous instruments hitherto offered to the profession.

ARNOLD & SONS' New Pocket Sphygmograph, in leather cases and prepared papers, complete

CASH PRICE £2 16s.

ARNOLD & SONS,

Instrument Makers by Appointment to Her Majesty's Government, the Honourable Council of India, the Admiralty, St. Bartholomew's Hospital, and the principal Provincial and Colonial Hospitals,

35 and 36 WEST SMITHFIELD, LONDON.

GOLD & SILVER MEDALS, Highest Awards wherever Exhibited.

G LACIALINE.

NOTICE TO THE TRADE.

As Extensive Alterations are being made at our Chemical Works in Glasgow, NO ORDERS, except those already on our Books, can be executed until the end of May.

In order to prevent disappointment, Orders for the month of June should be sent in at once.

**GOOD ADVICE
TO CHEMISTS**

Always keep a Stock of Glacialine.

WE ADVERTISE in all the high-class magazines and journals of the day.

Don't send away customers with "Sorry, we don't keep it in stock, but we will order it for you."

You lose custom in the way, for people, when they go for Glacialine, are in a hurry, weather hot, things waste, &c.

THE ANTITROPIC PURE DAIRY CHEMICALS.

THE ANTITROPIC ANNATTO FOR COLOURING MILK AND THE CHEESE MADE FROM T. This Annatto is guaranteed to be free from Lime, Copper, Venetian Red, Turmeric, and other adulterations found in the ordinary Annatto of Commerce, which is prepared and vended by persons who know nothing of Chemistry.

THE ANTITROPIC COWSLIP COLOURING FOR BUTTER.—This preparation can only be used for Butter, for which it has most excellent properties, giving to White Butter a rich and natural Cowslip Colour. A 3s. Bottle will change $\frac{1}{2}$ ton of White Butter into a beautiful Cowslip Tint.

THE ANTITROPIC RENNET.—This preparation is made from carefully-selected Calves' (none but Sucking Calves) Stomach It is prepared when the udders are perfectly fresh, thus avoiding the objectionable and offensive odours generally found in Rennet Essences.

THE ANTITROPIC DAIRY SALT.—Pure, readily soluble, and quite dry. Not liable to get damp. The Purest Salt in the market, and the best suited for making butter and cheese. Cheapest in the long run. Price 3s. 6d. per cwt.

The above Preparations are put up in elegant Wrappers and Cases, so as to be an ornament to the most select counter.

In 1878

**EMINENT CHEMISTS,
PHYSIOLOGISTS & DOCTORS
CERTIFIED THAT
GLACIALINE**

is a Harmless & Effectual Preservative of
MILK, BUTTER, EGGS, & other FOOD.

2 YEARS' DAILY USE in all parts of the World
has demonstrated this Scientific Testimony to be
correct.

wards GOLD MEDAL, Adelaide, 1881.

Garnement SILVER MEDAL, Norwich, 18-1
veral Prizes, Silver and other Medals
awarded to Butter Makers who have used GLA
CIALINE.

Stably Two Champion Cups have been won
at London Dairy Show by Butter preserved with
GLACIALINE.

GLACIALINE KEPT MILK & CREAM

SWEET at the Royal Agricultural Show
Day, for seven whole days, the weather being
soot that milk and cream without Glacialine
told sour in a few hours.

Kept BUTTER at the London Dairy Show
sweet and in good condition, which Butter
obtained THE LORD MAYOR'S CHAMPION
CUP and other Prizes.

Kept EGGS in CHINA from 30th May to 5th
September, temperature never below 70°
See this and other Testimonials.

100 MILES VOYAGE from England
to Manitoba, with a temperature o
92° in the shade. MILK preserved for 22 days
during this voyage.

PROFESSOR SHELDON'S RE-
PORT of the above WONDERFUL EXPERI-
MENT should be read in the *Live Stock Journal*
of 17th, 1880.

GLACIALINE KEPT FISH SWEET
at the National Fisheries Exhibition for
14 days, and received a Special Silver Medal.

GLACIALINE in INDIA — "Kept
milk sweet for more than a week, which
would have turned sour in three hours with
Glacialine." — Letter to J. Rouson, Esq. (Lat-
er of the Anchor Line Company). Glasgow.

GLACIALINE at MONTE VIDEO, —
"Kept meat for nine days after it was
killed." — JAMES RICKARD, Admiral's Steward
H.M. Inconstant, one of the Squadron in attend-
ance of the YOUNG PRINCES.

GLACIALINE at GIBRALTAR. — Lady
NAPIER of Magdala has used Glacialine
during the past year at Gibraltar, and is delighted
with it. Kept meat, milk, fish &c., during visits o
Leviers, which are heavy black clouds laden
with electricity, that hang over the rock of Gibral-
tar, and cause everything to become sour or putrid.

GLACIALINE — NO HOUSEHOLD
should be without it. Saving is Enormous

GLACIALINE — SAMPLE BOXES
to be obtained of good class Chemists
Grocers, and Oilmen, at 6d. each, in Packets a
2s., in Canisters at 2s. 3d. Manufactured by
THE ANTITROPIC COMPANY, Glasgow, and
20, Stamford Street, London, S.E.

Postage and Testimonials free on application.

astounding rapidity. Nothing is more marvellous than the time that one hundred gallons teem with myriads of beings like itself.

Now, if you deal with these cells circumspectly, they will render good service, but since they are exceedingly minute and tender of life, if you deal with them harshly they become absolutely useless. The life in them is easily destroyed — salt will destroy it; then, naturally is asked, why has salt been used to preserve stomachs? Why? Not because the cells required the salt, but because the protecible material of the stomach required to be preserved, and salt was the only material that has been known up to recent years to effectually preserve this, and that is the reason why salt has been used as a means of preserving.

It is seen that the farmers in the past ages have been doing all they could to destroy the very things they required, and they really have to thank their ingenuity, but the exceedingly prolific power of the cells for any amount of success at all. An occasional cell or two would be left in a cow that had been half alive, half dead, upon the mucous lining of those vials that had been pickled in salt, while the great majority would be totally deprived of life and therefore of no service as far as curdling milk is concerned; but if only a small percentage of cells had retained their vitality, owing to the rapid multiplication of each single cell when placed in a soil favourable to its growth (and milk is an eminently suitable soil for the propagation of peptic cells), cheese-making has been practicable. Few have imagined what an expensive process that of pickling vials in salt is.

The Antitropic Company, by preserving the calves' stomachs according to a new method of their own, are able to collect all the active cells, which they pierce and put up in a suitable form for the use of cheese-makers and housekeepers who wish to make junclets, curds, and whey. In placing the Antitropic Rennet before dairy-farmers and the public, the advantages that are claimed for it are that it is a more cleanly and wholesome preparation, as none the tissues of the calves' stomachs are mingled with it, and being a fluid containing the peptic cells in suspension, it is much more effective than ordinary preparations in the market.

THE
ANTITROPIC CO.,
Manufacturing Chemists,
GLASGOW; AND
20 STAMFORD STREET, BLACKFRIARS,
LONDON, S.E.

**NEW DAIRY PREPARATIONS.—Read the following
CHEMICAL & PHYSIOLOGICAL DISSERTATION.**

The ordinary Annatto of commerce is adulterated and impure, the adulterations and impurities being for the most part Lime, Copper, Venetian Red, Turmeric, &c. An article such as Annatto which is used in food should be especially free from any such adulterations or impurities. In response to requests from various quarters, we have at length produced

THE ANTITROPIC ANNATTO.
**THE ANTITROPIC COWSLIP COLOUR
FOR BUTTER.**

(This Preparation is distinct from Annatto, and can only be used for Butter.)

THE ANTITROPIC RENNET.

Continued from April Issue.

How was cheese first made? It is very difficult to answer this question, as we have no reliable data to work from, but it may be easily imagined that in the early years of mankind some curious and inquiring mind opened a sucking calf's stomach just after it was killed, and knowing that the calf had taken into its stomach nothing but its mother's milk he would not be in the slightest degree afraid to taste and try it; he would find the material coagulated in the stomach very agreeable to his palate, and perhaps might have collected the curd of various stomachs, eaten it, and found it nourishing; then curiosity would creep in, and the man would naturally ask himself the question — How does milk come to be changed into this material? Then, after a period of reflection and thought, he would come to the conclusion that it was something in the stomach of the calf which caused this change to take place. Having arrived at this conclusion, it was but the most natural thing in the world that he should have taken the calf's stomach and placed it in a quantity of milk and watched the result. He would find that if he placed it into cold milk that the change he desired to bring about would be a long time in taking place, and naturally it would suggest itself to his mind that the best thing he could do would be to imitate as far as he could the condition under which the calf had changed the milk into curd, and he would place his bowl of milk into warm water, or by some other means raise the temperature, when the result would be obtained more quickly and efficiently.

This is very probably the method by which cheese manufacture was first inaugurated, but when the population of the world increased, and many mouths had to be fed, some difficulty was found in preserving the calves' stomachs so as to make good cheese.

It is only, then, in very recent years that any attempt has been made to preserve calves' stomachs by any other means than salt, yet it will surprise a great number of people to be told that salt is very injurious to that portion of the calf's stomach which is active in coagulating the milk.

The interior of a calf's stomach has a mucous lining, and this mucous lining is studded over with an innumerable quantity of cells. These minute cells are called peptic, and they are the active workers of coagulation in milk; and as far as their weight compares with the gross weight of the stomach, they do not represent the one-thousandth part of the total weight, therefore it is somewhat surprising that throughout ages men have gone on dealing with a mass of protecible matter such as the calf's stomach, when the only portion of the stomach of use in curdling milk is the mucous lining, or, more correctly speaking, the cells lining it, when only an infinitesimal portion of that material is of any use whatever for any purpose which they require the stomach for. Instead of being of any service, the actual substance of the stomach itself is of the greatest detriment to the milk and the cheese made from it — the nitrogenous matter of which it is composed is highly liable to decomposition and putrefaction, and its decomposing and putrefacting tendency is communicated to the milk, and thencefrom to the cheese.

To return to these cells that are called peptic, and which are the producers of coagulation in milk, it has only recently been discovered that these cells are living organised beings, and that the coagulation in milk is due to their vital activity. These cells change the nature of milk by absorbing certain elements from it, and so changing its chemical composition. They are living beings, and when they are put into milk they are like so many hungry beings placed in a larder stored with the very food which they delight in. The consequence is, they do not halt, hesitate, or consider, but they fall to with a vengeance, and in their doing so they multiply with an almost infinite rapidity.

One cell placed in one hundred gallons of milk will in a very short time multiply to one hundred thousand cells. One cell placed in one hundred gallons of milk will in a very short time multiply to one hundred thousand cells.

Now, if you deal with these cells circumspectly, they will render good service, but since they are exceedingly minute and tender of life, if you deal with them harshly they become absolutely useless. The life in them is easily destroyed — salt will destroy it; then, naturally is asked, why has salt been used to preserve stomachs? Why? Not because the cells required the salt, but because the protecible material of the stomach required to be preserved, and salt was the only material that has been known up to recent years to effectually preserve this, and that is the reason why salt has been used as a means of preserving.

It is seen that the farmers in the past ages have been doing all they could to destroy the very things they required, and they really have to thank their ingenuity, but the exceedingly prolific power of the cells for any amount of success at all. An occasional cell or two would be left in a cow that had been half alive, half dead, upon the mucous lining of those vials that had been pickled in salt, while the great majority would be totally deprived of life and therefore of no service as far as curdling milk is concerned; but if only a small percentage of cells had retained their vitality, owing to the rapid multiplication of each single cell when placed in a soil favourable to its growth (and milk is an eminently suitable soil for the propagation of peptic cells), cheese-making has been practicable. Few have imagined what an expensive process that of pickling vials in salt is.

The Antitropic Company, by preserving the calves' stomachs according to a new method of their own, are able to collect all the active cells, which they pierce and put up in a suitable form for the use of cheese-makers and housekeepers who wish to make junclets, curds, and whey. In placing the Antitropic Rennet before dairy-farmers and the public, the advantages that are claimed for it are that it is a more cleanly and wholesome preparation, as none the tissues of the calves' stomachs are mingled with it, and being a fluid containing the peptic cells in suspension, it is much more effective than ordinary preparations in the market.

FLETCHERS'

Concentrated Liquors

Any quantity of a required Syrup at a moment's notice.

PERMANENT. UNIFORM. ECONOMICAL.

It is only necessary to add to the proper proportion of Concentrated Liquor a certain volume of Syrupus, P.B., in order to obtain any one of the Chemical Syrups, in the highest perfection, and at prices which would be otherwise unattainable.

THE FOLLOWING LIQUORS ARE THOSE IN MOST CONSTANT DEMAND:—

Liq. Ferri Iodidi, 1 to 7.

Each fluid drachm contains 34·4 grains of Iodide of Iron. This is the only permanent solution of Ferrous Iodide yet produced. It may be exposed for months in an open bottle without impairing the beautiful sea-green tint characteristic of the freshly-prepared salt. It produces a brilliant Syrup free from any yellow tint.

½ lb. bots., 5s.; 1 lb. bots., 9s. (*fluctuates*).

Liq. Ferri Lactophosph., 1 to 7.

Each fluid drachm contains 8 grains of Phosphate of Iron, combined with Lactic Acid.

½ lb. bots., 3s. 6d.; 1 lb. bots., 6s. 6d.

Liq. Ferri Phosph., 1 to 7.

Each fluid drachm contains 8 grains of Ferrous Phosphate, One volume added to seven volumes of Syrupus B.P. forms Syr. Ferri Phosph. of a uniform strength unattainable by the Pharmacopœia process.

½ lb. bots., 2s.; 1 lb. bots., 3s. 6d.

Liq. Ferri Phosph. Comp., 1 to 3.

Each fluid drachm contains, in addition to the Alkaline Phosphates, 4 grains of Ferrous Phosphate, and 8 grains of Calcium Phosphate dissolved in pure Phosphoric Acid. One volume added to three volumes of Syrupus B.P. forms "Chemical Food" of a strength nearly double that of ordinary commercial specimens.

½ lb. bots., 2s.; 1 lb. bots., 3s. 6d.

Liq. Calcis Hypophosph., 1 to 7.

Each fluid drachm contains 8 grains of Hypophosphite of Calcium.

½ lb. bots., 2s. 6d.; 1 lb. bots., 4s. 6d.

Liq. Calcis Lactophosph., 1 to 7.

Each fluid drachm contains 8 grains of Calcium Phosphate, combined with Lactic Acid.

½ lb. bots., 3s. 6d.; 1 lb. bots., 6s. 6d.

Liq. Ferri Bromidi, 1 to 7.

Each fluid drachm contains 34·4 grains of Bromide of Iron.

½ lb. bots., 3s. 6d.; 1 lb. bots., 6s. 6d.

Liq. Hypophosph. Comp., 1 to 7.

Each fluid drachm contains 8 grains of Hypophosphite of Calcium, and 4 grains each of the Hypophosphites of Potass and Soda.

½ lb. bots., 3s. 6d.; 1 lb. bots. 6s. 6s.

Liq. Ferri et Quiniæ et Strychnæ Phosph., 1 to 3.

Each fluid drachm contains 4 grains of Phosphate of Iron, 4 grains of Phosphate of Quinine, and $\frac{1}{4}$ grain of Strychnine. One volume added to three volumes of Syrupus B.P. forms "Easton's Syrup."

½ lb. bots., 6s. 6d.; 1 lb. bots., 12s. (*fluctuates*).

Liq. Hypophosph. Comp. & Quiriæ et Strychniæ, 1 to 3.

One volume added to three volumes of Syrupus B.P. forms the Compound Syrup of the Hypophosphites, with Quinine and Strychnine.

½ lb. bots., 5s.; 1 lb. bots., 9s.

Liq. Ferri et Calcis Lactophosph., 1 to 7.

Each fluid drachm contains 4 grains of Phosphate of Iron, and 4 grains of Phosphate of Lime, combined with Lactic Acid.

½ lb. bots., 3s. 6d.; 1 lb. bots., 6s. 6d.

Liq. Ferri et Manganæ. Phosph., 1 to 7.

Each fluid drachm contains 4 grains of Phosphate of Iron, and 4 grains of Phosphate of Manganese.

½ lb. bots., 2s. 6d.; 1 lb. bots., 4s. 6d.

Liq. Ferri Hypophosph., 1 to 7.

Each fluid drachm contains 8 grains of Hypophosphite of Iron.

½ lb. bots., 2s. 6d.; 1 lb. bots., 4s. 6d.

Liq. Ferri et Ammon. Cit., B.P. 1 in 2.

Each fluid drachm contains half a drachm of Citrate of Iron and Ammonia (British Pharmacopœia).

1 lb. bots., 1s. 4d.

Liq. Ferri et Quiniæ Cit., B.P. 1 in 2.

Each fluid drachm contains half a drachm of Citrate of Iron and Quinine (British Pharmacopœia).

4 oz. bots., 5s. 6d.; 16 oz. bots., 2ls. (*fluctuates*).

**FLETCHER, FLETCHER & STEVENSON,
NORTH LONDON CHEMICAL WORKS, HOLLOWAY, LONDON,**

Chemists and Druggists' Trade Association of Great Britain.

NOTICE OF ANNUAL GENERAL MEETING.

NOTICE IS HEREBY GIVEN, that the SIXTH ANNUAL GENERAL MEETING of the Members of this Association will be held in the Banqueting Room of the INNS OF COURT HOTEL, LINCOLN'S INN FIELDS, LONDON, W.C., on Tuesday, May 16th, 1882, at Twelve, noon, for half past Twelve, for the transaction of the following business:—

To receive and consider the Report of the Executive Committee, and the General Statement of the Funds of the Association.

To elect an Executive Committee and Officers for the ensuing year.

To discuss questions affecting the interests of the Trade.

W. F. HAYDON,
Secretary.

OFFICE OF THE ASSOCIATION,
23 BURLINGTON CHAMBERS, NEW STREET,
BIRMINGHAM, May 5th, 1882.

Literary and Scientific.

WORKS BY DR. DOBELL

Consulting Physician (late Senior Physician) to the Royal Hospital for Diseases of the Chest, &c.

J published, A New and Enlarged Edition, carefully Revised and Annotated, with Coloured Plate,

ON LOSS of Weight, Blood-Spitting, LUNG DISEASE. To which is now added Part VI., on the FUNCTIONS and DISORDERS of the LIVER, and their Management in accordance with the Results of Modern Discovery.

Affections of the Heart and in its Neighbourhood. Cases, Aphorisms, and Commentaries. Illustrated. Second issue.

On Vinter Cough, Catarrh, Bronchitis, ERYSEMA, ASTHMA. Coloured Plates. Third Edition.

Practitioners' and Students' Guide to PHYSICAL DIAGNOSIS: Demonstrations of Diseases in the Chest. Coloured Plates.

On Diet and Regimen in Sickness and HEALTH, and on the Interdependence and Prevention of Diseases, and the Diminution of their Fatality. Sixth Edition.

Report on the Use of Pancreatic ENZYME and PANCREATINE, as first introduced into Medical Practice by Dr. Dobell in 1863.

Reports on the Progress of Practical and SCIENTIFIC MEDICINE in DIFFERENT PARTS of the WORLD. Two Vols.

Dr. Dobell's Reports on Diseases of the CHEST. Contributed by distinguished coadjutors in different parts of the world. Three Vols.

A Descriptive Catalogue of the above Works, with Prices, Lists of Illustration Opinions of the Press, and the Table of Contents of each volume, on application at LEWIS'S LIBRARY, 136 Gower Street, London, W.C.

3. In the Shilling Discount for Cash with Order.

Books sent to any of the Wholesale Houses for enclosure.

HENRY KIMPTON, Chemical and Scientific Bookseller and Publisher, 82 High Holborn, London, W.C.

New Catalogue One Stamp. To the Pharmaceutical Society of Great Britain.

ATTFIELD'S CHEMISTRY.

General, Medical, Pharmaceutical.
NINTH EDITION, 15s.

For Study For Reference.

JOHN VAN VOORST, 1 Paternoster Row.

Now Ready. Price 4s.

INCE'S LATIN GRAMMAR.

THE LATIN GRAMMAR OF PHARMACY,

For the use of Medical and Pharmaceutical Students, with an Essay on the Reading of Latin Prescriptions. By JOSEPH INCE, F.C.S., F.L.S., A.K.C. Lond., formerly Examiner and Member of Council of the Pharmaceutical Society of Great Britain.

London: BAILLIERE, TINDALL & COX, 20 King William Street, Strand.

COPYRIGHT, 3RD EDITION. PRICE 7s. 6d., POST FREE.

Invaluable at Home and Abroad.

THE CONFECTIONERS' HANDBOOK AND PRACTICAL SUGAR BOILER

Teaches the whole art of making Sweets of every description, English and Scotch Pastry, Biscuits, Jams, Jellies, and Marmalades, Ice Creams, Chocolates, Cordials, Aerated Waters, Fermented Beers, Pickles, &c. To manufacturers, shopkeepers, cooks, and everyone interested in the business, this book is worth its weight in gold. Vide the opinions of *The Chemist and Druggist*, *Grocer, Caterer, Times*, and upwards of 1,000 unsolicited testimonials.

P.O.O. payable at Southwick Street, W., to

E. SKUSE,

Practical Confectioner and Confectioners' Machinist,

300 PRAED STREET, LONDON, W.

ILLUSTRATED PRICE LISTS, &c., POST FREE.

ESTABLISHED 1842.

THE SCHOOL OF PHARMACY*Of the Pharmaceutical Society of Great Britain.*Chemistry and Pharmacy, Prof. REDWOOD, F.I.C., &c. Botany and Materia Medica, Prof. BENTLEY, F.L.S., &c.
Practical Chemistry, Prof. ATTFIELD, F.R.S., &c.

FORTIETH SESSION, 1881-82, extending from October 1 to July 31.

Application for admission to the School, for Prospectives, or for further information, may be made to the Professors or their Assistants in the Lecture Room or Laboratories, 17 Bloomsbury Square, London, W.C.

THE CENTRAL SCHOOL OF CHEMISTRY AND PHARMACY,
173 MARYLEBONE ROAD (OPPOSITE LISSON GROVE), N.W.

DIRECTORS - - - - - MESSRS. LUUFF & WOODLAND.

Teacher of Chemistry and Physics, Mr. A. P. LUUFF, F.C.S., F.L.S., Pereira Medallist, &c.

Teacher of Pharmacy, Botany, Materia Medica, &c., Mr. J. WOODLAND, F.C.S., F.L.S., M.P.S., &c.

STUDENTS' AIDS TO EXAMINATION.

PRELIMINARY.—Arithmetic and Metric System, 1s. How to Write an Essay, 6d. Latin Grammar and Caesar Simplified, 2s. 6d. Parsing made Easy (Latin and English), 1s. **MINOR**—Equations Simplified, 1s. Illegible Autographic Prescriptions, 1s. Minor Questions, 1s. Minor Physics 1s. Analysis, 2s. Prescriber Reading, 2s. Notes on Pharmacy, 2s. Notes on Dispensing, 1s. Prescriptions given at the Minor, 1s. For "How to Prepare for either Exam," enclose stamped envelope, "Chemist," care of Mr. J. Edwards, Wye, Kent.

*"SYSTEMA OMNIA VINCIT."***SOUTH LONDON
SCHOOL of PHARMACY,**

325 KENNINGTON ROAD, S.E.

Director: Dr. JOHN MUTER, M.A., F.I.C., F.C.S., &c.

The regular course commenced on April 15th, and application for benches in the Minor and Major Laboratories (now running) should be made without delay. A few advanced Students can be received until June 1st.

For Syllabus, &c., apply to W. BAXTER, Secretary.

A PROFITABLE AGENCY.

Many Chemists are now doing a large Business with our

INDIARUBBER STAMPS

They are readily sold for marking Linen, and also for a variety of Business purposes.

Send Business Card for Illustrated Specimen Book Trade Terms, and full Particulars to

THE CITY RUBBER STAMP COMPANY

(ESTABLISHED 1878),

SNOW HILL BUILDINGS, HOLBORN VIADUCT, E.C.

Every Stamp is guaranteed for Five Years.

LONDON HOMEOPATHIC HOSPITAL,
Great Ormond Street, Bloomsbury.

Unendowed. Seventy Beds. Funds urgently needed. Trained Nurses sent out to attend private patients. Wards set apart to receive paying patients.

For further information apply to the Hospital. By order,

G. A. CROSS, Secretary.

**THE EASTERN COUNTIES'
SCHOOL OF CHEMISTRY AND PHARMACY,
GRIMSBY,
248 CLEETHORPE ROAD.**

Principal: Mr. W. S. TURNER, Pharmaceutical Chemist, M.P.S.

At the April Examinations in London and Edinburgh Seven men from this School were examined. Five passed.

Extract from letter, April 28th, "I congratulate you on obtaining a larger percentage of passes this month than any other school."

NELSON'S**"HOME COMFORTS"**

A NEW WORK ON COOKERY,

BY MARY HOOPER,

AUTHOR OF "LITTLE DINNERS," &c.

May be had gratis and Post Free on Application to

G. NELSON, DALE & CO.,
DOWGATE HILL, LONDON, E.C.

THE WESTMINSTER COLLEGE OF CHEMISTRY,

TRINITY SQUARE, LONDON, S.E.

roprietors Messrs. WILLS & WOOTTON.
 Director... G. S. V. WILLS, F.R.S., F.L.M.S.

The COMPLETE COURSE of LECTURES and CLASSES for the JUNE and JULY EXAMINATIONS has now commenced. Students intending to present themselves for Examination in June or July should write AT ONCE for Particulars of the Course.

Fee: £3 3s. per Month, or Until Qualified, £10 10s.

SPECIAL SHORT COURSE OF LECTURES will be commenced for the JULY EXAMINATION on MONDAY, JUNE 12th. Extra attention will be paid to Practical Botany and Chemistry. Fee: £3 3s.

On FRIDAY, SEPTEMBER 1st, the ELEVENTH SESSION of this College will be commenced, and the COURSE of INSTRUCTION will extend to the OCTOBER and DECEMBER EXAMINATIONS.

In the EXAMINATIONS held in London last Month, the following Students were SUCCESSFUL in passing from this College:—

MAJOR.

MINOR.

Mr. A. C. J. Horrell.

Mr. W. Ball.	Mr. W. L. Longstaff.	Mr. T. D. Summers.
" J. Davies.	" G. F. Odams.	" A. S. Swadling.
" J. Dutton.	" W. C. Pitts.	" F. W. Walker.
" J. Eddy.	" J. Quibell.	" S. F. Whitney.
" H. Emerson.	" M. Radford.	" J. W. Williams.
" T. Farthing.	" E. Radcliffe.	" J. Wilson.
" F. Graham.	" T. Randall.	" F. W. Wood.
" J. Littleboy.	" T. Shackleton.	

PRELIMINARY.

Mr. J. Ashton.	Mr. S. Harris.	Mr. H. H. Long.
" C. Brown.	" J. G. Henderson.	" A. W. New.
" J. Halliwell.	" A. F. Langley.	" B. Smith.

APOTHECARIES' HALL.

Mr. J. M. Eddy.	Mr. J. Jones.	Mr. E. Radcliffe.
" T. W. Farthing.	" J. W. Littleboy.	" A. S. Swalling.
" J. H. Frost.	" W. Pickering.	" J. Quibell.
" C. A. Hedley.		

For Prospectus and further Particulars, apply personally, or by letter, to the SECRETARY.

LOUIS ROWLAND (late Lutschaunig & Co.).



59 SOUTH JOHN STREET, LIVERPOOL.

HENRY
IMPROVED



LAURANCE'S
SPECTACLES.

Wholesale Depot:—44 HATTON GARDEN, LONDON, E.C.

Hundreds of Testimonials have been received from the leading Oculists, Gentlemen of the Medical Profession, the Clergy, and others.

These celebrated Spectacles are now kept by nearly all the leading Chemists throughout the United Kingdom. An unlimited number of Circulars containing Testimonials, with Agent's Name and Address, together with Henry Laurence's pamphlets, "Spectacles: their Use and Abuse," &c., &c., sent gratis with each parcel. Every facility is given for doing a large Trade. Advertisements inserted in local papers.

APPLICATIONS TO BE MADE TO 44 HATTON GARDEN, LONDON.

INDEX TO ADVERTISEMENTS,
See pages 21, 22.



**IMPORTANT
TO
CHEMISTS AND DRUGGISTS.**

**S. MAW, SON & THOMPSON'S
NEW
BOOK OF ILLUSTRATIONS
FOR 1882,**

**PRICE 10s., CONTAINING UPWARDS OF
4,000 ILLUSTRATIONS o**

**SURGEONS' INSTRUMENTS & APPLIANCES
INSTRUMENTS, &c., FOR VETERINARY PURPOSES;
DRUGGISTS' APPARATUS, INSTRUMENTS, UTENSILS**

**And other requisites employed in Pharmacy and the Dispensing of Medicines;
MEDICAL GLASS AND EARTHENWARE; MEDICINE CHESTS
HAIR, TOOTH, AND NAIL BRUSHES; TOILET AND SMELLING BOTTLES; AND**

DRUGGISTS' SUNDRIES OF ALL KINDS;

Shop Fittings, Counters, Glass Cases, Desks, Show Stands, &c., &c.

I S N O W R E A D Y ,

**And will be PRESENTED GRATIS to all Chemists and Druggists, at Home and
Abroad, having accounts open with the Firm.**

S. MAW, SON & THOMPSON, 7 to 12 Aldersgate St., London.

ROWLAND'S TOILET ARTICLES,

20 Hatton Garden, London,

Have been known for the last 80 years all over the world, and being well advertised, and always finding a ready sale, are well worthy the attention of Chemists, Druggists, and Storekeepers.



ROWLAND'S MACASSAR OIL

Is universally held in high repute for its unprecedented success during the last 80 years in promoting the growth, restoring, improving, and beautifying the human hair. It prevents hair from falling off or turning gray, strengthens weak hair, cleanses it from scurf and dandruff, and makes it beautifully soft, pliable, and glossy. For children it is especially recommended, as forming the basis of a beautiful head of hair, while its introduction into the nursery of Royalty is a sufficient proof of its merits. Sizes, 3s. 6d., 7s., 10s. 6d. (equal to four small), and 21s. per bottle.

ROWLAND'S KALYDOR

A more refreshing preparation for the Complexion, dispelling the cloud of languor and relaxation, allaying all heat and irritability, and immediately giving the pleasant sensation attending restored elasticity and healthful state of the skin. Freckles, Tan, Spots, Pimples, Flushes, and Discoloration before its application, and give place to delicate clearness, with the glow of beauty and of bloom. In cases of smnhrn, or stings of insects, its virtues have long been acknowledged. Price 4s. 6d. and 8s. 6d. per bottle.

ROWLAND'S ODONTO

EA' DENTIFRICE is of inestimable value in preserving and beautifying the teeth, strengthening the gums, and giving a pleasant fragrance to them; it eradicates tartar from the teeth, prevents and arrests decay, and polishes and preserves the enamel, to which it imparts a pearl-like tint. Its unprecedented success for more than half a century shows the universal favour in which it is held, while the fact of its being entirely free from any acid or mineral ingredients constitutes it the safest and purest tooth powder ever used.

ROWLAND'S EUKONIA

A new fragrant Toilet Powder, specially recommended to ladies. Each box has inside the lid a certificate of purity from Dr. REDWOOD, Ph.D., F.C.S. 2s. 6d. per box.

IMPORTANT CAUTION.—To protect the public from fraud, ALL ROWLAND'S ARTICLES have on the WRAPPER their SIGNATURE, "ROWLAND & SONS," in red ink; the genuine Kalydor has a 6d. Government stamp across the stopper, and the genuine Odonto a 3d. Government stamp across the box. Buy only ROWLAND'S articles, of 20 HATTON GARDEN, LONDON.

COUNTER BILLS, SHOW CARDS, &c., CAN ALWAYS BE HAD ON APPLICATION.

LYON BROTHERS' IMPROVED MAGNETIC INSULATORS

(PATENTED).

Simplest, Cheapest, and Most Effective Preventive and Remedy yet discovered in Cases of Nematism, Gout, Dropsy, Neuralgia, Sciatica, Lumbago, Paralysis, Cramp, Sleeplessness, and all Nervous Disorders.

N.—Specially fitted to counteract the relaxing and enervating influences of hot and humid climates on the constitution.

The IMPROVED MAGNETIC INSULATORS are now used and recommended by eminent members of the medical profession, and there is a largely increasing public demand for them.

They possess superior advantages to Galvanic Chain Bands, and Magnetine Appliances, without the inconvenience of wearing them.

May be obtained direct from the Sole Makers and Proprietors,

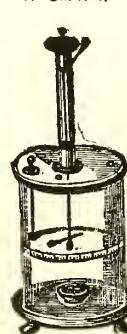
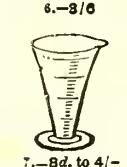
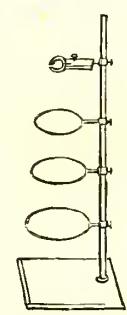
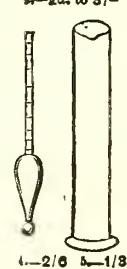
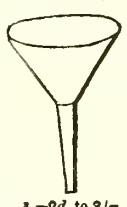
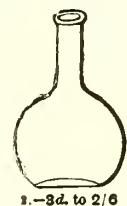
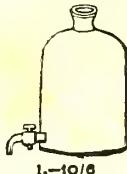
LYON BROTHERS, St. Helens, LANCASHIRE,

OR FROM THE SOLE AGENTS (FOR CHEMISTS),

S. MAW, SON & THOMPSON, LONDON.

Cases containing 12 Sets (4 to the Set), Price 22s. per Case.
Retail Price, 2s. 9d. per Set of Four.

SHOW CARDS, ETC., ON APPLICATION.



J. ORME & CO.

(Late M. JACKSON & CO.),

MANUFACTURERS

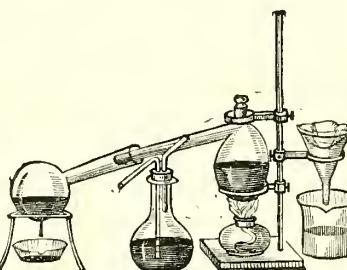
OF

SCIENTIFIC APPARATUS,

AND IMPORTERS OF

Finest BOHEMIAN
and GERMAN
GLASS AND PORCELAIN

CHEMICAL
APPARATUS,



ALSO

PURE
CHEMICALS
For Analysis,

*By appointment to Her Majesty's Honourable Board of Inland Revenue;
Science and Art Department and Government Schools at South
Kensington; the Pharmaceutical Society of Great Britain,
&c., &c.*

APPARATUS SECURELY PACKED FOR THE COLONIES & FOREIGN PARTS.

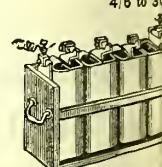
SOLE WHOLESALE AGENTS FOR
HICKLEY'S PATENT TELEPHONES

Price 50s. per pair. Cash with Order.

These Telephones have been tested up to 200 miles, and will transmit conversation through that distance with perfect ease. They are in use at the Railway Clearing House, Euston Square, London, and numerous other large Establishments.

HUNNING'S PATENT TRANSMITTERS,
For use with above, £5 per pair.

CARBON TRANSMITTERS, with AUTOMATIC SWITCHES,
£6 6s. per pair.

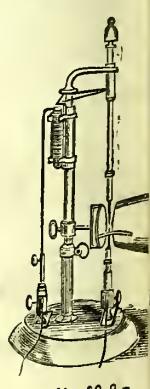


13.-£1 15/-

NEW PRICE LIST OF CHEMICAL APPARATUS,
Containing 600 Illustrations, price 6d.

Complete Illustrated Catalogue of Scientific Apparatus,
nearly 1,000 Woodcuts, price 2/6.

J. ORME & CO.,
65 BARBICAN, LONDON.



DARTON'S IMP^D CLINICAL THERMOMETERS.

FOR TELLING THE TEMPERATURE OF THE BLOOD IN CASES OF FEVER.

In IMPERISHABLE INDEX, as noticed in the "LANCET," "CHEMIST AND DRUGGIST," "DESIGN AND WORK," &c. obtained only of the Sole Inventors and Makers, F. DARTON & CO.; are much superior to the ordinary contracted Clinical Thermometers, and not being liable to get out of order, as is usually the case with Clinical Thermometers, are therefore specially suited for export.

PLAIN CLINICAL THERMOMETERS,

In Boxwood Cases, 4 in. or 6 in., 4s. 6d. each.

Ditto in Ebony Cases, with Contracted Stem and Indelible Scales, 5s. each.

Ditto in German Silver Cases, 3s. per dozen extra.

Ditto in Ivory Cases, 5s. 6d. each.

Ditto in, in Ivory Cases, with Wings to prevent rolling, 12s. per dozen extra.

Darton Improved Imperishable Index Clinical Thermometers, in Case, 4 in. or 6 in., 6s. each.

Ditto with enlarged and magnified bore, 7s. each.

Ditto with both Fahrenheit and Centigrade Scale, 18s. per dozen extra.

One Flat and one Straight Clinical Thermometer, in Velvet-lined Morocco Case, 6 inches long, 10s. 6d. per set.

Any of these supplied in Centigrade Scales instead of Fahrenheit, if required, without extra charge. Special prices for quantities.

Certificates (supplied to order only), 1s. 3d. each extra.

Illustrated Price List of Barometers and Thermometers forwarded on application.

ELECTRIC BELLS.

New Electric Bell Set, consisting of Bell, Battery, Push Piece, and Wire, with Instructions for Fixing, 10s. 6d. complete.

New Plain Best Electric Bell, on Metal Frame, large size Battery, 20 yards Line Wire, Push Piece or Thief Detector, suitable for Office or Shop Door, 16s. 6d.

Ditto, large Bell, with 2 Batteries, 25s.

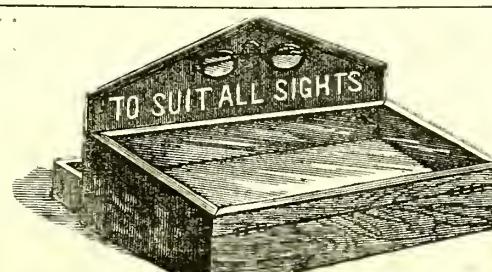
New Portable Invalid's Bell Battery, Push Piece and Flexible Cord, with Pear-shaped Push, in Polished Mahogany Case, £2 2s.

Our New Illustrated Price List of Electric Bells and Fittings, with directions for fitting, sent post free on application.

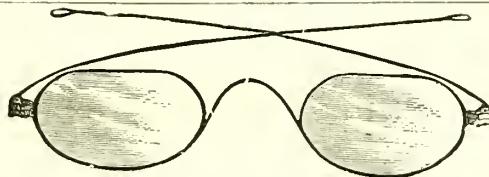
Our £3s. SHOW CASE for the Counter, in Polished Mahogany, contains 4 doz. Spectacles, Sight Testes and Instructions for suitable sight.

Our £3s. CASE contains, in addition, 2 doz. Folders and 2 doz. Cases.

Larger Cases, in Polished Mahogany or Ebonised, with an assortment of superior quality



F. DARTON & CO., 45 ST. JOHN STREET, LONDON, E.C.
ESTABLISHED 1834.



SPECTACLES.

Iron Frames, Convex Glasses, Assorted Sights. Common, 21/- per gross. Better ditto, 33/- per gross.

STEEL FRAMES—

Common, 6/- per dozen. Better Quality, 10/- per dozen.

Ditto Light Ball Joint Frames, 18/- per dozen.

Ditto Extra Light Frames, Best White Glasses, 36/- per dozen.

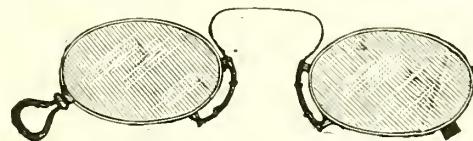
Pantoscopic ditto, with Polished Edge Glasses, 36/- as fig. 1.

Steel Frames, with Convex Pebbles, 27/- per dozen.

Ditto Better Quality Frames, 42/- per dozen.

Ditto Best Pebbles, 48/- per dozen.

Ditto Extra Light Frames and Best Pebbles, 60/- per dozen.



JAPANESE FOLDERS.

Common Steel, 6/- per dozen. Steel, 7/6 per dozen.

Ditto with Shell Nose Pieces, 10/6 per dozen.

Ditto Grooved Glasses, Light Frame, 15/6 per dozen.

Ditto Nickel Plated, Grooved, Extra Light, 32/- per dozen.

Ditto Best Fancy Handled, 54/- per dozen.

Nickel Plated Folders, Coloured Glass, 36/- per dozen.

Tortoiseshell ditto, Convex Glasses, 36/- per dozen.

GOLD SPECTACLES, from 11/- per pair. Ditto Superior, 14/- and 21/- per pair. GOLD FOLDERS, from 13/6 per pair.

Blue Glass	Neutral
21/- per dozen.	Tint
	Smoke
	Colour,
	24/- doz.

SKELETON FOLDERS. 9/6 per dozen.
Best quality ditto, 12/6 per dozen.

Spectacles, Folders, and Cases, £6 6s. and £10 10s.

Ditto, with assortment of Best Pebble Spectacles and Folders, £21.

Printed Instructions and Focimeters sent with each Show Case.

New Illustrated Price List of Spectacles and Folders, with Trade Terms, on application.

EVERY PHARMACIST KNOWS

That before a bottle of medicine leaves the hands of the dispenser its cork should be covered as to to exclude the air and present a finished appearance. This can be done with leather, split skins, parchment, indiarubber, or paper, which may be stretched or pleated over the cork by the hands. Then it must be secured to the neck of the bottle with string or wire, and the edges cut off or trimmed with a pair of scissors.



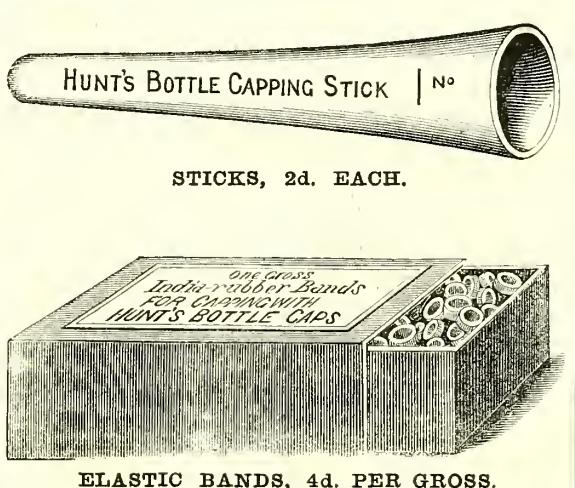
HUNT'S
PAPER

REGISTERED
TRADE MARK.

BOTTLE
CAPS.

But the most convenient plan is to use HUNTS PAPER BOTTLE CAPS which are made in suitable sizes, of superior papers, folded into elegant forms by machinery. When these are fastened on bottles with rubber bands, which can

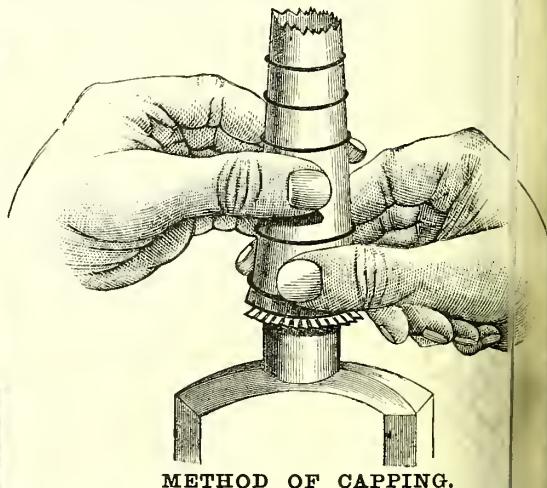
be slipped over in a second by means of HUNT'S BOTTLE CAPPING STICK, the result is perfect. No string or tying, no trimming with scissors. They are as great an improvement on the old style of



HUNT'S BOTTLE CAPPING STICK | No.

STICKS, 2d. EACH.

ELASTIC BANDS, 4d. PER GROSS.



METHOD OF CAPPING.

capping as the now universal gummed label was on the ancient bib or ticket of folded paper which hung down from the mouth of every bottle of physic which emanated from the doctor's shop fifty years ago.

HUNT'S BOTTLE CAPS can be had stamped on the tops with name and address; and since they are not necessarily destroyed like other capsules the first time the bottles are uncorked, but can be placed after each dose, their utility as a trade card is apparent.

PRICE LIST.

Numbers 0 to 5 (Drachms to 10 oz.)	... . . . .	1s. Od. per gross.
" 6 (Pints) ... . . . .	... . . . .	1s. 4d.
" 39 (Quarts) ... . . . .	... . . . .	2s. Od.

The Stock Colours are Red, Blue, Green, Orange, Violet, Grey, and White (about 20 different shades).

Stamping Name and Address 6d. per Gross (minimum 10 Gross).

SOLD BY ALL DRUGGISTS' SUNDRIESMEN, AND BY

W. F. HUNT & CO.,

3, 4, and 5 LITTLE WINDMILL STREET, LONDON

MANUFACTORY—MARSEILLES.

H. BROOKS & CO.,

COLLAPSIBLE TUBE MANUFACTURERS,

PATENTEES AND SOLE MANUFACTUREES OF THE
PORTABLE METAL SPRINKLER STOPPER,
AND DEALERS IN
GLASS BOTTLES FOR PERFUMERS AND OTHERS.

STEAM FACTORIES:

31 LIME STREET, CAMDEN ROAD (*COUNTING HOUSE, AND SHOW-ROOMS,*)

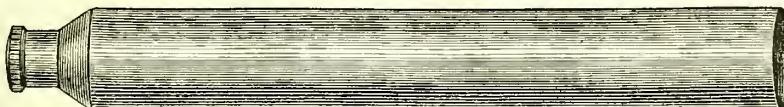
31 to 36 CUMBERLAND MARKET, REGENT'S PARK,

AND

BARTHolemew Road, KENTISH TOWN, LONDON, N.W.

ESTABLISHED 1810.

COLLAPSIBLE TUBES OF ALL SIZES.



Perfumes, Artists' Colours, Soaps, Cosmetiques, Creams, Oils, Varnishes, &c. These Tubes are inexpensive and portable, and may be applied to many useful purposes besides those above mentioned.

SOLE MANUFACTUREES AND PATENTEES OF

THE PORTABLE METAL SPRINKLER STOPPER,



With Cork fitted thereon for bottles of any size, and having apertures of various dimensions, especially adapted for Perfumes, Hair Washes, Lime and Glycerine Essences, &c. These handsome stoppers give a character and finish to the most ordinary bottles to which they may be applied. Gilt or plain; and put up if required in handsome glass lid boxes, suitable for shop counters and show cases, at moderate prices.



THE "TORSION" PATENT SPRINKLER.

The two designs, Nos. 18a and 19a, are those to which we direct special attention, as sizes being in general use; other sizes will follow promptly to meet all requirements, on which Caps with two or more holes will be introduced to meet the public taste.



No. 18a.

Particular attention is called to the latest improvement in our Patent Metallic Stopper, the "Torsion." This New Stopper adheres to the design of the original patent, which has been universally acknowledged as an ornamental and useful article for the Toilette, as possessing all the advantages of a "Permanent and Indestructible Stopper, suitable for all Sizes and Shapes," with the additional security it affords, that the Cap can never be entirely unscrewed, so that it cannot be lost. It is specially effective as a Sprinkler, while giving a more prompt and copious, yet economical, spray, through the improved action of the Cap. Such combined advantages, in an article of exquisite finish, have long been desired, and it is thus submitted for general approval, and its usefulness when tried will be appreciated by all. Illustrations, Price Lists, &c., can be had on application, or through any Wholesale House in town or country. All orders received direct will be promptly attended to.

No. 19a.

NOTON.—All Stoppers of our Manufacture are made of Pure Tin, and have the name of H. BROOKS & CO. stamped on the under side of the rim.

Tubs are made of Pure Tin unless specially ordered of Mixed Metal, from the smallest size up to 13 in. by 23.

EXACT SIZE.



SAUTER'S HOLLOW SUPPOSITORIES,

PREPARED FROM PURE COCOA BUTTER.

Accuracy, Cleanliness, Elegance, Facility & Promptitude of Preparation.

PRICES:—Per Box, containing 100 Suppositories, with Stoppers, No. 1, 6/-

Ditto ditto ditto No. 2, 7/-

Ditto ditto ditto No. 3, 8/-

SUBJECT TO USUAL DISCOUNT.

SAUTER, CHEMIST & DRUGGIST, GENEVA (SWITZERLAND)

Inventor and First Manufacturer of Hollow Suppositories.

No. 2.

Depôt:—F. NEWBERRY & SONS, 1 King Edward Street, London.

NOTICE!

KAY'S COMPOUND ESSENCE OF LINSEED, &c., is now Labelled, in addition to the name of the article, with the word "POISON."

Stocks in the hands of Retailers may be exchanged by returning to KAY BROTHERS, ST. PETER'S GATE, STOCKPORT, or to the Wholesale House from whom obtained. (If sent as returns consigned as "returns," no extra carriage will be incurred.)

N.B.—The new may be distinguished by the space left for name and address of Vendor on the back of Wrapper.

"EGYPTIAN BITTERS"

Are composed of some of the principal Herbal Bitters contained in the vegetable kingdom. These Bitters are approved, recommended, and prescribed by the most eminent medical authorities, in cases of Ague, Debility (Nervous or General, from whatever cause arising), as a Tonic after Fevers, Bronchitis; also in Epilepsy, Stomach, Dance, Mental Depression, Wind, Flatulence, Indigestion and Vital Exhaustion. Far superior and cheaper than any preparation of Quinine, Iron, &c. "EGYPTIAN BITTERS" prove beneficial as a Nerve Strengthener and Brain Feeder.

For all Affections of the BRAIN, NERVE, and SKIN, there is no Medicine to equal "EGYPTIAN BITTERS."

"EGYPTIAN BITTERS" Are Prepared and Sold in Bottles, 3s. each by

HUGH EDGSON,

Manufacturing, Family, and Dispensing Chemist
6 ALBERT STREET, NOTTINGHAM
LONDON AGENTS—Barclay & Sons; Evans, Lescher & Webb; & Co.; J. Sanger & Sons, &c., &c., through whom indents may be filed.

KEENE & ASHWELL'S COMPANION TO THE HOMŒOPATHIC PHARMACOPEIA

Price 3/6 Post Free to any part of the World on receipt of Remittance

This work gives all the remedies of the Homœopathic Pharmacopeia, with a host of new ones. It gives all the processes of the official work, so that it is all the Chemist will require. Some of the tests are omitted as these are given in the British Pharmacopeia, and are really unnecessary. We give a few extracts from the many flattering letters we have received concerning the book.

1.—"It will certainly be a most useful manual, supplying information in regard to the sources and preparations of our *materia medica*."

2.—"I have received your very handy and wonderfully complete 'Companion,' and, after a very cursory examination of some of its contents, can see already that it is a publication that cannot fail to be very useful."

3.—"A very handy volume it is, and promises to be a most useful one."

4.—"I think it admirable, and trust you will have a large sale for it, as it is deserving of such."

5.—"In the cursory glances I have been able to give it, I see that it is a very handsome, well-printed, convenient sized, and conveniently-arranged little book, which appears to fulfil the objects the authors profess to have had in view in its compilation."

6.—"I have looked through it carefully and find it admirably arranged and very complete."

7.—"I am much obliged for your promptness. I like the little book very much."

8.—"It must have cost a good deal of labour, and, as far as I have been able to judge from a glance here and there, it contains a good deal in a condensed form."

9.—"So far as I have looked into it I think it most useful and instructive

in its matter; careful and judicious in its arrangement, and likely to be of great use to Homœopathic Chemists, to Medical Students, and Practitioners; besides which, it avoids the criticism that 'a great book is a great evil.' It is concise and handy, very useful for reference."

10.—"Your book contains a great deal—when we are uncertain about the medicine we want is made in, reference corrects."

11.—"It will be very useful to us all"

12.—"It is a most useful work, well arranged and nicely got up."

13.—"I consider it a valuable addition to our Homœopathic literature."

From THE CHEMIST AND DRUGGIST, February 15, 1888.

"The chemist who has or is likely to have a trade in Homœopathic Medicines will find Messrs. Keene & Ashwell's Companion to the Homœopathic Pharmacopeia of considerable service. He will learn the process of preparation of all the usual and of most of the unusual Homœopathic Preparations. In most cases the Companion will render the use of the Homœopathic Pharmacopeia, besides that in many cases it supplies more information of the kind required for reference by the Homœopathic Chemist."

KEENE & ASHWELL, MANUFACTURERS OF HOMŒOPATHIC MEDICINES, 74 NEW BOND STREET, LONDON.

Price Lists of Medicines, &c., free on application.

The best and cheapest Show Cases in the i

0 per Cent. Discount for Prompt Cash.



BOURNE & TAYLOR'S SELF-ADJUSTING EYE SHADES

These Shades are made of a very light material, and are bound on the edge next the forehead with soft leather, while the outer edge has a metallic binding, extending 3 or 4 inches on each side of the Slade, forming a complete automatic spring, which renders the Shades perfectly adjustable to heads of any size.

They will be found of the greatest use to all whose calling demands a close application of the eyes to their work.

Ladies will also derive great benefit from their use while reading or sewing by artificial lights.

It is well known that heat is considerably more injurious to the eyes than light.

In Shades of the old type the heat arising from the face and breath accumulates, and is retained near the eyes and forehead until the removal of the Shade, proving very detrimental to the eyes, and often producing a violent headache. This is entirely prevented by using the

NEW PATENT SHADES.

6s. per Dozen; Retails at One Shilling.



INSECT POWDER.

Best Dalmatian.	Per lb., 2/-
In Bottles, with Perforated Top,	
per doz., 4/-	
In Tin Bellows, per doz., 7/6	
Empty Bellows, per doz., 5/-	

INSECT POWDER BOXES

With Perforated Tops.

size, per gross	Paper.	Tin.
...	2/-	2/6
...	3/6	5/-
...	5/-	8/-
...	8/-	12/-

CAMPHOR CASKETS.

Mallie, Perforated. 3 dozen in a Counter Box.

Per gross, 8/6. Retail at One Penny.

These are having an enormous sale.

CARDED SPONGES.

(A REVOLUTION IN THE SPONGE TRADE.)

ormous success which has attended the introduction of Sponges on Showcards proves that they have supplied a want; we are constantly having to repeat orders for them, and they give universal satisfaction. They are well selected, and, and such good value that they command a ready sale. The Honeycombs are put up as follows:

2 on a Card	...	...	to sell at	1d.	2d.	3d.	4d.
			per dozen,	8d.	1/4	2/-	2/8
6	"	"	to sell at	6d.	1/-	1/6	2/-
			per dozen,	4/-	8/-	12/-	16/-
3	"	"	to sell at	5/-	6/-	7/-	8/-
			per dozen,	40/-	48/-	54/-	64/-
							80/-

TURKEY SPONGES.

2 on a Card	...	...	to sell at	4d.	6d.	1/-	1/6
			per dozen,	2/8	4/-	8 -	12/-
3	"	"	to sell at	2/-	2/6	3/6	5 -
			per dozen,	16/-	20/-	28/-	40/-
							60/-
							80/-

A Complete Catalogue, with 500 Illustrations, post free. Special Terms to Shippers and Wholesale Buyers.

BOURNE, JOHNSON & LATIMER,

Wholesale and Export Druggists' Sundriesmen
(ESTABLISHED IN 1845),

35 CASTLE STREET, HOLBORN, LONDON, E.C.



NON-IRRITANT IODINE for INTERNAL USE.

GARDNER'S UNALTERABLE SYRUP OF HYDRIODIC ACID

SYRUPUS ACIDI HYDRIODICI (GARDNER).

In this preparation the Hydriodic Acid is perfectly protected against decomposition and is therefore always available for medical use—a result never before attained.

Solution of Hydriodic Acid was long since recommended for internal use. Dr. BUCHANAN, in the *London Medical Gazette*, Vol. XVIII., p. 517, published a formula for its extempore preparation, and states that the solution preserves all the therapeutic powers of Iodine without its irritating properties. But the solution always decomposed within a few hours after its preparation, and was therefore rarely, if ever, in a fit condition for internal administration.

The decomposition is caused by the disengagement of Hydrogen; this sets free its equivalent of Iodine which colours the remaining acid red, and renders it too irritant for internal medication.

Simple mixtures of Hydriodic Acid and Syrup do not keep.

When not decomposed, Hydriodic Acid is of a light-yellowish colour, is perfectly non-irritant, grateful to the taste, and rendered still more acceptable if combined, as in this preparation, with sugar.

In chemical composition it consists of one equivalent each of Iodine and Hydrogen (HI). As the equivalent of Iodine is 127, and that of Hydrogen 1, it follows that the proportion of Hydrogen present, as compared to Iodine, is 1/127 or 1 per cent. (78-100 of 1 per cent.). The Acid is therefore nearly pure Iodine.

The combination renders Iodine more assimilable, and medicinally more active, whilst depriving it of its objectionable irritant properties, and changing it from a most disagreeable to one of the pleasantest of remedies.

The Syrup has been remarkably useful in **Asthma, Chronic Bronchitis, and Hay Fever** (See papers by J. P. OLIVER, M.D., Boston, *Medical and Surgical Journal*, March 4th, 1880, and by W. GILL WYLIE, New York, *Medical Record*, May 10th, 1879.) While it has been found specially useful in these diseases, it is applicable to all that large class of affections in which the use of Iodine is indicated, as in chronic bronchitis, and subacute Catarrhal Affections, Goitre, Adipose Tumours, Syphilis, &c.; also in chronic Malarial Poisoning.

Its effect upon mucous surfaces is more marked than that of other forms of Iodine, while it is effective in smaller relative proportions.

It is as palatable as Lemon Syrup.

It is so free from irritant action that it may be given to the youngest infants.

Its efficacy in Syphilis has been demonstrated.

One ounce of this Syrup contains forty minims of dilute Hydriodic Acid, representing 6.66 grains of Iodine, which correspond to 8.69 grains of Iodide of Potassium: it is, however, more active than Iodide of Potassium, and given in smaller relative doses.

The Dose of this Syrup is from one to three teaspoonfuls in twice the bulk of water, three or four times a day.

OPINIONS OF THE MEDICAL PRESS.

The **LANCET**, March 25, 1882, writes:—Hydriodic Acid, containing as it does more than 99 per cent. of iodine, is an excellent form in which to administer the element. Gardner's solution is in all respects admirable. Not a trace of free iodine can be detected in it, and as to taste, it can hardly be distinguished from lemon syrup. In addition to the ordinary applications of iodine, it is described as useful in asthma, chronic bronchitis, and hay fever.

The **BRITISH MEDICAL JOURNAL**, April 1, 1882, writes:—Although little is said about hydriodic acid in our text books of *materia medica*, it is undoubtedly a valuable drug, and affords an admir-

able mode of administering iodine, when it is desired to avoid its constitutional effects. It has of late been employed with considerable success in the treatment of asthma, bronchitis, and hay fever. It is little used in medicine, from the difficulty experienced in obtaining a stable form. This difficulty has at length been overcome; received from Messrs. Allen & Hanburys a specimen of Gardner's hydriodic acid, which is all that could be desired. It is of a light colour, is free from smell, and has a sweet styptic taste, and is not disagreeable. The dose is from two to three teaspoonfuls a day.

In 1-lb. Bottles, at 5s. 4d. each, or 63s. per dozen.

Prepared by ROBERT W. GARDNER, Pharmaceutical Chemist, 170 William Street, New York.

Sole Wholesale Agents—W. H. SCHIEFFELIN & CO., New York.

AGENTS FOR GREAT BRITAIN—

ALLEN & HANBURY'S

PLOUGH COURT, LOMBARD STREET, LONDON.

Index to Advertisers.

SCALE OF CHARGES FOR ADVERTISEMENTS.

The Page, £5. Half Page, £2 15s. Third Page, £2. Quarter Page, £1 12s. Sixth Page, £1 5s. Eighth Page, 18s.
 Special Rates for Wrapper and pages preceding and following Literary matter, also pages facing inside of Wrapper. The above Scale of Charges
 will be subject to a discount of 10 per cent. upon 7 and 20 per cent. upon 13 insertions, prompt quarterly payments.
 In order for 13 insertions means 12 in the CHEMIST AND DRUGGIST and 1 in the CHEMISTS' AND DRUGGISTS' DIARY. The same rule also applies
 to an order for 7 insertions, or to an order for insertion until countermanded, if such order is in force in October of any year.
 All Advertisements intended for insertion in the current Month must be sent to the PUBLISHER OF THE CHEMIST AND DRUGGIST on or before the 12th,
 except Employers and Assistants' Advertisements, which can be received up to 10 A.M. on the morning previous to publication.

B	Elap Bitter Water Co.	84	28 Corley, J., and Co.	43	25 Henry, T., and W.	110
All	and Hanburys	90, 138	29 Corner, R.	120	29 Hewlett, C. J., and Son	94
All,	R. J.	119	30 Corry, W., and Co.	79	30 Heynes, Mathew and Co.	87
All	cos Co.	38	37 Craven, F.	124	35 Hoff, J.	101
All	Aneropic Co.	6, 7	38 Craven, M. A., and Son	47	36 Hoff, M.	100
All	Apnaris Co.	59	40 Cresswell, R. and Co.	33	39 Holloway, Professor	110
All	Arni and Sons	6	46 Cubley and Preston.	119	40 Homoeopathic Hospital	10
All	Assants Wanted	28	49 Curry, Lloyd and Co.	44	41 Hooper and Co.	1
All	Assants Wanting Situations	28	50 Darling, W.	32	41a Hop Bitters	110
All	Atkinson & Barker	106	52 Darton, F., and Co.	15	43a Hoskin, W.	132
All	Australian (Ramornie) Meat Co.	135	53 Davenport, J. T.	109	44 Hovenden and Sous.	34
All	Aylebury Dairy Co.	129	54 Davenport and Co.	52	47 Hunt, W. F., and Co.	16
Ball	Ball, W. H., and Son	80	55 Davison, A.	86	48 Hunter	124
Bal	Bairre, Tindal and Cox	9	6 Day, Son and Hewitt	120	51 Ingham	88
Bal	Bairidge and Pound	36	7 Delacre's Extract of Beef	23	2 Ingram and Royle	140
Bal	Balsbrothers and Co.	104	8 De Luca, G. V.	100, 116	3 Ingram and Son	136
Bal	Baldobson and Co.	87	10 Denoual, J.	106	4 Insule, E. S.	116
Bal	Bart, T.	123	11 De St. Dalmas, A.	116	3 Jackson, T. S.	119
Bal	Bart and Foster	49, 72, 140	13 Dinneford and Co.	108	4 James and Co.	31
Bal	Barr and Elers.	48	14 Dobell, Dr.	9	6 James, Lieut. R. S.	120
Bal	Barr Squire and Co.	96	14a Doddemeade, Thos.	110	7 James, R. J.	120
Bal	Batte and Co.	87	16 Duncan, Flockhart and Co.	98	9 Jewsbury and Brown	32, 54
Bal	Batt, J. R.	124	17 Dunn and Co.	103	9a Johnson and Son	90
Bal	Baumartner and Co.	118	18 Evans, Sons and Co.	39, 46, 60, 68, 70,	10 Jones, E. B.	87
Bal	Beddi	32	78, 97, 132	11a Joseph, A. J.	40	
Bal	Beecon, T.	107	14 Evans, Sons and Co.	39, 46, 60, 68, 70, 78,	2 Kaye, J.	117
Bal	Bent, E.	114	97, 132	3 Keene and Ashwell	18	
Bal	Bowl and Draper (Limited)	82	15 Ewen, J., and Sons	32	5 Kempthorne, Prosser and Co.	88
Bal	Blick and Sons	87	1 Farina, J. M., "gegenüber"	25	6 Kent, G. B., and Sons.	46
Bal	Bliggs	122	1a Farina, J. M., No. 4	61 to 66	7 Kermode, R. K.	135
Bal	Bing	70	1b Farina, J. A.	41	10 Kilmer Brothers	113
Bal	Bingl, J.	71	2 Faulding and Co.	90	12 Kimpton, H.	9
Bal	Bishop A.	76	4 Favarger and Co.	51, 52	14 Kiomond and Co.	58
Bal	Blackill, G. G.	34	5 Fellows, J. I.	105	2 Lalor, Dr.	104
Bal	Bolla, E., and Co.	135	6 Felton, Grimwade and Co.	89	4 Lamplough	79
Bal	Boud, Daughter	36	7 Fennings, A.	140	7 Laurance, H.	11
Bal	Boud, H., and Co.	86	9 Févré	50	8 Lazenby, E., and Son	134
Bal	Bourne and Taylor	19	11 Finch, Rickman and Co.	132	9 Leath and Ross.	3
Bal	Bowlin and Govier	124	12 Finzelberg	135	11 Lehmann, R., and Co.	130
Bal	Bradie and Bourdas	119	13 Fitch and Nottingham	28	12 Lemaitre and Co.	127
Bal	Brady d Martin	108	14 Fletcher, Fletcher and Stevenson	8	13 Lennon, B. G., and Co.	87
Bal	Brand d Co.	129	15a Forster and Gregory	103	14 Letchford and Co.	34
Bal	Bratby d Hinckliffe.	52	17 Foulkes	38	16 Levermore Bros.	103
Bal	Breckin Turner and Co.	38	22 Freeman, R.	111	22 Lincoln and Midland Counties' Drug Co.	117
Bal	Briffett d Co.	28	23 Fry and Sons	131	24 Litchfield, P.	111
Bal	Briggs and Co.	101	1 Gabriel and Troke	123	50 Lloyd, A. S.	45
Bal	Brett, J.	26	2 Gadd, H.	26	32 Lloyd, W. H.	79
Bal	Ristori, F. F., and Co.	30	3 Gallais, E., and Co.	TEXT 210	33 Loeflund, E.	100
Bal	Ritish phon Co.	56	5 Geraut	50	36a Longshaw, W., and Sons	102
Bal	Rodie books and Co.	38	6 Gibson, R.	129	40 Lumb, J., and Co.	116
Bal	Rowen, F., and Co.	17	6a Gills, Schacht and Co.	92	41 Lynch and Co.	77, 139
Bal	Rowne, F., and Co.	44	7 Gillott, J.	123	43 Lyon Brothers	13
Bal	Rock, J.	28	8 Glasgow Apothecaries' Co.	114	Lyons, J., and Co.	57
Bal	W. Ark.	96	9 Goddard, J.	119	3 Macfarlan, J. F., and Co.	98
Bal	J.	39	10a Goodall, Backhouse and Co.	133	4 Mackay, J., and Co.	79
Bal	Wellcome and Co.	41, 81, 105	13 Gondl, E., and Son	47	5a Maignen.	71
Bal	Wib, V. J.	67	16 Greensill	34	13 Mawer and Co.	130
Bal	Wines for Disposal and Wanted	27	17a Gregory, W.	106	14 Maw, S., Son and Thompson.	12, 31, 35, 115, 123, 132
Bal	Wether, V., and Co.	TEXT 210	18a Gt. Tower Street Tea Co.	133	15 May and Baker.	2
Bal	Witter, Culcock and Co.	102	19 Grindley and Co.	134	16 Metz, Paul.	38
Bal	Witt, Ch. and Co.	98	21 Gulliver, S., and Co.	59	17a McLachlan, J., and Co.	116
Bal	Witton, J.	110	0 Haensel, H.	88	17a McMaster, Hodgson & Co.	128
Bal	Woburn, J.	140	2 Hampson, R.	135	19 Millard, Son and Appleton.	44
Bal	Y. Gram and Son.	101	5 Hanks, H. D., and Co.	110	21 Mills, R. M., and Co.	56
Bal	Yeodo de, and Co.	87	6 Hargreaves, J., and Son	43	22 Morrison and Thew.	119
Bal	Yurk Manufacturing Co.	10	7 Harris, Philip, and Co.	83	30 Mottershead and Co.	108
Bal	Yurk Manufacturing Co.	10	8 Harrison, W. B.	54	31 Mountain and Co.	50
Bal	Yurk Manufacturing Co.	4	9 Harrop, W. H.	126	32 Mnfmf, G. S.	TEXT 210
Bal	Yurk Manufacturing Co.	102	10 Harston and Co.	59	33 Murphy, J.	36
Bal	Yurk Manufacturing Co.	125	11 Hart, J., and Son.	5	0 Nash Brothers and Lawton.	79
Bal	Yurk Stamp Co.	10	16 Hay, W.	57, 69	1 National Chemical Co.	126
Bal	Yurk, L.	85	17 Hayman	111	2 Negretti and Zambra.	90
Bal	Yurk, L.	118	18 Haywood, J. S.	112	3 Nelson, Dale and Co.	10
Bal	Yurk, L.	123	21 Helliar, E.	122	5 Nestle, H.	129
Bal	Yurk, L.	80			7 Newbery and Sons.	18, 23, 33
Bal	Yurk, R. and Co.	125			10 Newton, Keates and Co.	103
Bal	Yurk, R. and Co.	123			11 North British Chemical Co.	108
Bal	Yurk, R. and Co.	1, 91			1 Oakey and Sons	118
Bal	Yurk, R. and Co.				3 Orme and Co.	14
Bal	Yurk, R. and Co.				4 Orridge and Co.	26
Bal	Yurk, R. and Co.				5 Osborne, E. M.	115

Index to Advertisers—continued.

4 Pattison, G.	29	18a Shelfanger Waters, Proprietor of	54	25 Tyler, Hayward, and Co.	48
6 Peterson and Co.	36	20 Silicated Carbon Filter Co.	74, 75	26 Tyrcer	134
7 Pfahler	86	22 Skinner, G. H.	73	1 Vallet, L.	68
11 Pickering, J., and Sons	118	22a Skuse, E.	9	2 Van Voorst	9
14 Plomer, E., and Co.	87	26 Smith and Gibb	36	4 Victoria Bitter Water.	69
16 Poiglase, F. J. W.	123	30 Smith, J. G.	56	Vin Santa	64
16a Polimeni F. S.	104	31 Smith, T. and H.	94	1 Walker and Dalrymple	133
17 Poths, H., and Co.	112	28 Smith, T. J.	135	2 Wand, S.	106
18 Pritchard & Lloyd	122	32 Smith, W. F.	106	3 Warner, W. R., and Co.	23
18a Prosser, E., and Co.	89	33 Snook, G. F., and Son.	37	4b Waterston, G., and Sons	134
20 Pulvermacher, J. L.	83	34 Solport Bros.	38	4a Watson and Co.	87
2 Randall and Sons.	90	35 Southall Brothers and Barclay.	82	7 West, Thomas.	32
3 Rayner and Co.	72	36 South London School of Pharmacy (W. Baxter, secretary)	10	7a West, W., and Co.	63
4 Rayner, L.	133	38 Spratt.	122	9 Westminster College of Chemistry and Pharmacy.	11
8 Riimmel, E.	30	40 Squire, P., and P. W.	93	12 Whiffen, T.	96
10 Robbins and Co.	108	42 Stedman, J.	TEXT 210	13 Whitaker and Grossmith.	34
11 Roberts and Co.	86	44 Stevens, P. A.	32	13a Whitmete, J., and Co.	128
13 Robinson, B.	128	46 Stewart, R. S., and Co.	42	14 Wiggin, H., and Co.	134
16 Rogers, W.	34	51 Sussex Drug Co.	106	15 Wilcocks, N. G.	28, 53, 55, 56, 71
18 Ross, W. A., and Co.	59	53 Symes and Co.	92	16 Willian, W.	45
19 Rowland, A., and Sons	13	54 Symes and Co. (Simla)	87	17 Williamson and Sons	126
19a Rowland, L.	11	3 Taylor, T. and F. J.	135	24 Woods, W.	32
20 Rubbeck, H.	89	4 Tench and Taylor.	27	25 Woolley, Sons and Co.	92
2 Salmon, Ody and Co.	112	6 Thompson and Capper.	47	26 Wrangham, R. H.	110
6 Sands Manufacturing Co.	42	6a Thompson, F.	79	27 Wright, J. W.	72
7a Saunter	18	9 Tinplate Decorating Co.	42	28 Wright, Laymar, and Umney.	92
7b Savars.	39, 78	10a Tittensor.	56	28a Wright and Holdsworth.	125
8 Savory and Moore.	82	12 Tomlinson and Hayward.	121	29 Wyleys and Co.	91
10 Schieffelin and Co.	20	13 Tomlinson, R.	127	1 Yates, W. S.	116
11 Schmedes and Co.	30	15 Toogood, W.	114	2 Young H. (G. Pattison, proprietor)	21
12 School of Pharmacy, Bloomsbury Square.	10	16 Towle, E. T.	117	1 Zimmermann, A. and M.	99, 10
14 Schweppes' mineral Waters	TEXT 210	17 Treble, G., and Son.	127		
15 Seabury and Johnson.	137	18 Trippier.	26		
15a Seeley, I. B.	112	20 Tuily, J.	10		

Advertisers' and Buyers' Reference List.

N.B.—The letters and figures which follow the headings—A 1, B 3, &c.—refer to the left-hand column in the Index of the Advertisers' names on the preceding page. The buyer in search of dealers in Quinine will find certain letters and figures in this Index. By referring to the Index Advertisers he will find the pages indicated on which Quinine is advertised.

ACETIC AC. D 17. AERATED & MIN. WATERS A 2a, A 12, C 9, E 6, E 7,

G 3, G 21, H 8, H 10, H 16, H 41, I 2, J 9, M 21,

R 18, S 14, S 18a, S 22, T 3, K 14, B 34, O 2a, V 4,

F 9, F 4, M 31. Ditto PLANT B 14, B 56, C 42,

D 4, F 4, T 25, W 15, W 1a, B 33a. AGEN-

CIES ABROAD B 9, B 18, B 30, P 18,

W 4a, C 4, F 2, H 30, J 10, K 5, L 13, P 14, P 7,

D 5a, E 10, R 11, E 14, F 6. ALKALOIDS

S 31, W 12, M 3. ANALYT. CHEMISTS

C 27. ANNATO M 17a, A 11. APPAR-

ATUS, SCIENT. D 2, M 16, O 3, W 24a.

BAKING POWDER G 10a. BA-

RYTA SALTS. BEDS, WATER

H 41. BISM. SALTS M 15. BOOKS

D 14, S 30, G 9, G 13, K 3, K 12, M 14, N 3, S 22a,

S 30, V 2, B 4, C 15. BOOT POLISHES

B 66a, N 12. BORAK B 45. BOTTLE

CAPS H 47. BOTTLES & POTS B 15,

K 10, I 4, B 27, B 66, D 8, G 8, L 40, M 17, M 31,

P 17, T 15. BOXES. WD & TIN M 16,

S 27, T 9, W 17. BRUSHES K 6, S 46.

CACAO BUTTER B 53. CAM-

PHOR M 15, E 14. CAPSULES D 10, B 67.

CARBOLIC ACID. &c. L 36a, Z 1.

CASTOR OIL A 3. CEMENTS F 17.

CHALK PRECIPITATED L 16.

CHEKAN W 29. CHEMICALS M 15,

N 10, N 11, F 15a, L 36a, P 7, Z 1, O 3, S 31.

CHINOLINE Z 1. CHLORODYNE

D 3, T 16, F 22. CHLOROFORM D 16,

M 3, Z 1, E 10, S 31. COCOA & CHOCO-

COLATE F 23, C 1. CODLIVER OIL

A 3, C 2, S 28, S 35, W 25, W 29, B 58a.

COFFEE M 13, C 7. COLLAPSIBLE

TUBES B 66. CONFECTIONERS'

BOOKS AND PLANT C 20a C 38, S 22a.

CORKS B 58a. CORN CURES A 10,

C 28, H 6, R 13, S 33. T 6a, S 34, Y 2, E 14.

DENTIFRICES D 1, J 9, M 19, W 24,

L 9, T 6, N 7, B 24, D 14, W 4a. DENTISTRY

B 70. DISINFECTANTS C 23, C 24,

C 25, N 1, R 8. DOG BISCUITS. &c.

E 14, S 38, H 21, W 28a. DRUGSTS' SUN-

DRIES M 14, T 15, M 11, B 6, B 27, C 49,

DYES S 6, L 36a.

EAR PROTECTOR L 41. EARTH-

ENWARE GOODS I 4. EAU DE

COLGE F 1, F 1a, F 1b, J 11a, E 14. ELECTRIC

BELLS D 2. ENEMAS I 3,

L 41. ENGINES C 42, T 25. ESSEN-

TIAL OILS B 78, D 8, N 2a, R 20, S 53, F 6, W 4a,

Z 1, S 40. FEROX. HYDROGEN B 63,

DRUGGISTS B 6, B 16, B 78, C 27, E 5,

F 18a, P 7, M 19, W 29, S 53.

WATERS = CONCENT. R 13, S.

WAX D 14a, W 26, W 4b, J 9a, W 15,

B 74a, B 76, E 14, J 2, R 13. ZINC OX

H 7.

WHOLESALE AND EXP'D

DRUGGISTS B 6, B 16, B 78, C 27, E 5,

F 18a, P 7, M 19, W 29, S 53.

WATERS = CONCENT. R 13, S.

WAX D 14a, W 26, W 4b, J 9a, W 15,

B 74a, B 76, E 14, J 2, R 13. ZINC OX

H 7.

VALUERS B 59, O 4, T 4, T 18,

VERMIN KILLERS B 10, B 19,

H 21, H 48. VETERINARY C 26a,

D 6, G 1, H 21, J 7, J 6, T 2, S 33.

WHOLESALE AND EXP'D

DRUGGISTS B 6, B 16, B 78, C 27, E 5,

F 18a, P 7, M 19, W 29, S 53.

WATERS = CONCENT. R 13, S.

WAX D 14a, W 26, W 4b, J 9a, W 15,

B 74a, B 76, E 14, J 2, R 13. ZINC OX

H 7.

SOLUBLE & PERMANENT SUGAR-COATED PILLS.

No Pin-Holes. No Secret Coating. Purest Drugs.

Award of Merit, International Medical and Sanitary Exhibition, 1881.

SI: GRAND WORLD'S FAIR MEDALS. FIRST CENTENNIAL PRIZE OVER ALL COMPETITION.

The manufacture of officinal and other ready-made Pills for Physicians' prescriptions has been, on our part, confined to those coated with sugar and round in shape; because an experience of more than a quarter of a century serves to convince us that sugar is the only proper material with which to coat a pill; in confirmation of which we append the following reason :—

- Because sugar is more soluble than gelatine, glue, chalk, or talc, of which the two former are the same in substance and properties. "Sugar-coated pills are more soluble than gelatine-coated or compressed pills."—*Prof. Remington's Paper read before the American Pharmaceutical Association, Boston, 1875.*
- That according to our process, no sub-coating of insoluble shellac is necessary.
- That the direct application of heat is entirely avoided, and the masses can be coated when so soft as not to admit of being dipped in a hot solution of gelatine, or other substance.
- Sugar as a coating is not incompatible, as is the case with gelatine, when brought in contact with certain kinds of food, astringent fruits, or wine containing Tannin, by which it (gelatine) is converted into a condition the basis of leather.
- The preservative properties of sugar, and the tendency to attract rather than yield moisture as gelatine does, prevent the subsequent drying and hardening of the pills.
- A round substance is more easily swallowed than one which is elongated, flattened, or pointed, there being no art in deglutition that would enable it to pass endwise.
- The colour and shape of some gelatine-coated pills are so inelegant by comparison with the round, white sugared pill, as to be repulsive to sensitive patients.
- Actual experiments, which you are enabled to perform as to solubility and the administration of a dose of cathartic pills, the effect of which is soon apparent, will practically demonstrate the truth of our claims for the superiority of WARNER & CO.'s method over ALL others for coating pills.

VM. R. WARNER & CO., Manufacturing Chemists, Philadelphia:

Sol British Depot—F. NEWBERRY & SONS (Estd. A.D. 1746), 1 King Edward St., Newgate St., London, E.C.

Complete List, with Opinions of the British Medical Profession, post free on application.

DELACRE'S EXTRACT OF BEEF HAS BEEN AWARDED
SEVEN PRIZE MEDALS FOR SUPERIORITY,

AN AT THE SYDNEY EXHIBITION, 1879, OBTAINED THE FIRST DEGREE OF MERIT.

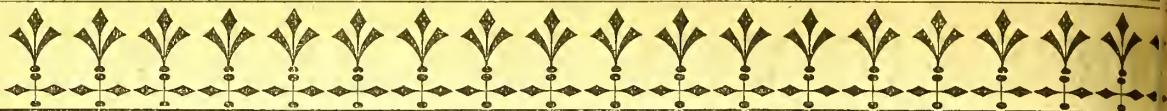
Its Superior advantages over all other Extracts of Meat are :—

1. Being Extract of Beef only, it makes the best Beef Tea.
2. Manufactured by an improved process, it has no burnt or other objectionable flavour.
3. It forms a rich, permanently clear solution.
4. It retains its quality and flavour, unaffected by time or climate.
5. The contents of each jar are guaranteed as to quality and weight.

Show Cards and Handbills supplied on application.

Delacre's Extract of Beef is to be obtained through all Wholesale Houses.

DELACRE'S EXTRACT OF BEEF CO., LIMITED,
48 KING WILLIAM STREET, LONDON, E.C.



THE ARTHRITIC SALINES,

HERE prepared from the prescriptions and under the direction of an eminent London Surgeon, and perfected for general use by

MESSRS. ELLIS & ELLIS,

Fount of the "RAVEN SPRING," Mitcham, Surrey.

THE
Arthritic Salines

PURIFY THE BLOOD FROM THE "POISONOUS STUFF" ACCUMULATED, TAKES THE SHAPE OF GOUT, OR OF RHEUMATISM, OF DYSPEPSIA, OF BILIOUS DISORDERS, IMPERFECT ACTION OF THE LIVER, BOWELS, SKIN, AND KIDNEYS, &c.

THE
ARTHRITIC
SALINES
ARE
THESE:

1. "The Arthritic Effervescent—Fluid" is one of the most brilliant and agreeable Table-waters ever discovered. Retails at 6s. dozen.
2. "The Arthritic Saline—Simple" Effervescent Powder, taken in water, and forms admirably alterative and Anti-Gout Medicine. Retails at 2s. 6d. bottle.
3. "The Arthritic Saline—Tonic" is likewise an Effervescent Powder, with the addition of well-esteemed tonic constituents. Retails at 3s. 6d. bottle.

Neither poisonous nor injurious substances, such as Colchicum, Hellebore, are contained in these Preparations. In fact, there be a tendency to looseness of the bowels the dose must be reduced or suspended. The term "ARTHRITIC" is of course signifying the inflammation of a joint.

MESSRS. ELLIS & ELLIS ISSUE NO TESTIMONIALS WHATEVER, but confident of the value of their products, leave them to work out their honest reputation, owing nothing to the mendacity of the press.

AS TO THE RAVEN SPRING, MITCHAM, SURREY

It may interest the reader to learn that this singular Spring was discovered by a member of the Firm five years ago, on driving down an artesian well to a depth of 300 feet. The water rises in a solid column over twelve (12) feet from the ground, and has never varied, summer or winter. It is excellent in quality and possesses very singular properties.

The Arthritic Salines are the GREAT FAMILY MEDICINE of the day—safe for every age, & able to cure the majority of the derangements of the human system.

SPECIAL NOTICE.

E are the only Manufacturers who send out SPECIMEN QUANTITIES of our Remedies (Nos. 2 and 3), so as to enable any "Victims of Gout" and allied disorders, to form their own opinion as to their excellent properties. For Six Stamps we deliver free a Box holding ONE DOSE. These can be had by Chemists on very low terms.

All further particulars may be obtained by letter to

Messrs. Ellis & Ellis,

RAVEN SPRING, MITCHAM, SURREY.

EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

JOHANN MARIA FARINA,

Opposite the Julichs Place, COLOGNE.

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

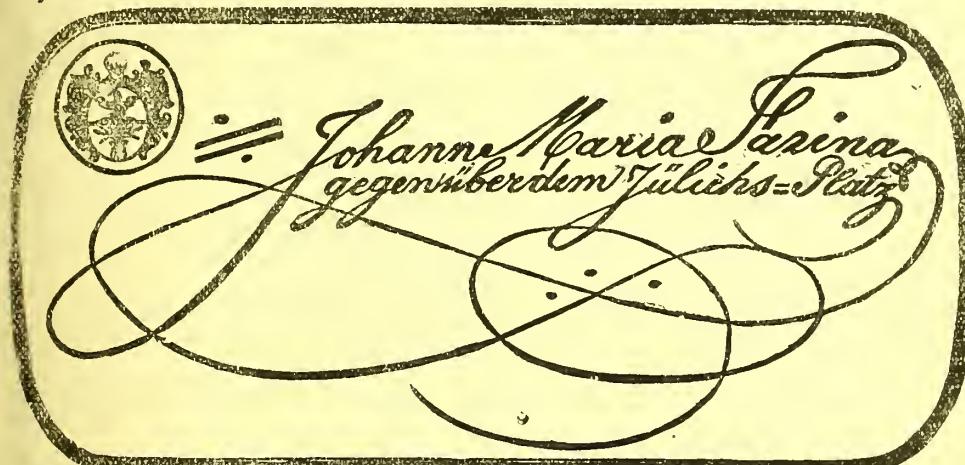
apointment, Sole Purveyor to Her Most Gracious
Majesty Victoria, Queen of Great Britain & Ireland;
their Royal Highnesses the Prince and Princess
of Wales; William, King of Prussia;



Albert II., King of Saxony; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal; H.R.H. Frederick William, Crown Prince of Prussia.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the registration of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



Similar Labels being more or less imitations of the same, I shall proceed as before against all persons exposing for sale any such imitations.

only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 12s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. A 10 per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

MESSRS. J. & R. McCACKEN,

No. 38 Queen Street, Cannon Street, London, E.C.

Following are the sizes of my bottles:—

No. 1. Long Green Flasks	12 bottles	} to one dozen.
" 2. Short White Bottles	...	...	...	...	...	12 "
" 3. Double ditto	...	...	...	...	...	6 "
" 4. Wickered Bottles (small)	...	...	...	...	...	8 "
" 5. ditto (medium)	...	...	...	...	...	4 "
" 6. ditto (large)	...	...	...	...	...	2 "

JOHANN MARIA FARINA,

OPPOSITE THE JÜLICH'S PLACE.

CHEMISTS' TRANSFERS.

32 LUDGATE HILL, LONDON (14 Doors from St. Paul's Churchyard).

MESSRS. ORRIDGE AND CO., CHEMISTS' TRANSFER AGENTS,

May be consulted at the above address on matters of SALE, PURCHASE, and VALUATION.

Immediate attention given to Foreign Commissions.

The Business conducted by Messrs. ORRIDGE and Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade.

VENDORS have the advantage of obtaining an opinion on Value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment.

PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate the object by describing clearly the class of connection they wish to obtain. N.B.—No Charge to Purchasers.

Particulars of any of the following will be sent free on application:

1.—LONDON, W.—Dispensing and Retail business; good situation and handsome corner shop; rent very moderate; returns, £600; price, £500.

2.—LONDON, S.W.—Very old-established Retail and Prescribing; well situated in first-rate position; price, about £1,400 (one year's returns).

3.—LONDON, N.—Retail and Prescribing business; very profitable; situated in a rapidly-increasing locality; returns, £750 yearly; price, £600.

4.—LONDON, SUBURB, S.E.—Old-established business in pretty locality; returns, £600 yearly; price, £550; good house and garden.

5.—LONDON, E.C.—Near the Bank; net profit over 50 per cent; about £1,600 required; particulars on application.

6.—LONDON, S.E.—Retail and Prescribing; doing at the rate of £400 yearly (nominal expenses); price, £300.

7.—KENT (about 12 miles from town).—In a pretty locality, and without any important opposition, Dispensing and Retail business, with comfortable house, garden, conservatory, &c.; returns nearly £700 yearly; price £660.

Other businesses Town and Country, particulars free on application.

8.—CHESHIRE.—In a large town an old established Mixed business returns between £900 and £950 yearly; large stock and hand-fitted shop, with lease included £1,000.

9.—SUSSEX.—In a rural district, an established business (no trade); comfortable house; rent low, on lease; returns average yearly; price about £650.

10.—HANTS.—Small business, situate in a first-rate town; rent £300; price, £275; no reasonable terms refused.

11.—WILTS.—In a good Agricultural Town, an old-established business well situate in a principal street; returns over £800; profits good; some shop and good house; rent low; price by valuation or an offer made.

12.—WILTS.—Agricultural Town, good class Retail and Mineral business; capital premises and good shop; returns over £800 yearly; price to be arranged; or stock and fixtures at valuation.

Terms for valuation on application.

ORRIDGE & CO., 32 Ludgate Hill, E.C.

MIDLAND COUNTIES TRANSFER AGENCY.

F. J. BRETT,

Trade Valuer and Auctioneer, Leicester.

All kinds of Chemists' Stock and Fixtures valued. Partnerships arranged. Particulars of different classes of Businesses forwarded to Buyers.

Through this Agency Businesses are disposed of quickly, and with as little publicity as possible.

To prevent disappointment, it is necessary for gentlemen desirous of securing Mr. Brett's services as a Valuer that appointments should be made as early as possible.

F. J. Brett has always on his Register from 200 to 300 Businesses in all parts, and at a wide range of prices.

NO PRINTED REGISTER issued, as experience has proved this to be so objectionable to Vendors.

YORKS.—In good Market Town, Light Retail (family), with bottled wines and spirits; returns £820; price, £650, considerably under one year's returns.

SUSSEX.—Light Family Retail and Dispensing, in pretty unopposed village, within easy distance of Brighton; full prices; returns £650, can be much increased; price, £650.

ESSEX.—Death Vacancy; Light Family Retail, Dispensing, and Prescribing; no chemist for miles; returns now £600; rent £23; price, £550.

BIRMINGHAM.—First-class Retail, Dispensing, and Prescribing, in pleasant suburb; returns from £600 to £700; goodwill, £100; stock and fixtures at valuation, about £400; good house, low rent.

CHESHIRE.—Old-established County Retail; returns £940; net profit, £500; vendor realised a fortune; price about £1,100.

SHEFFIELD.—Light Retail and Prescribing; established half a century; fine position; returns over £600; at valuation, about £600.

LEEDS.—Dispensing and Light Retail; many years in vendor's hands, who is retiring; returns £500; at valuation, about £200.

YORKSHIRE.—Retail and Good Prescribing; returns £1,000; net profit, £400; illness cause of sale; price, £850.

WORCESTERSHIRE.—Retail and Prescribing; returning £10 per week at full prices; satisfactory reason for sale; at valuation, about £250.

STAFFS.—Retail and Prescribing, at full prices; returns about £600; at valuation, about £350, or fixtures, worth £200, can remain and rented.

MANCHESTER.—Prescribing and Light Retail; commanding corner; returns under assistant £600, have been £1,000 under vendor's personal attention, and could be again; exceptionally fine chance for business man; at valuation of stock and fixtures, about £400.

ISLE OF WIGHT.—Retail and Dispensing, in fashionable winter resort; established 3 years; cost £600; on account of illness will be sold for £425; returns £400, and increasing.

SOUTH COAST.—First-class Retail, in finest position of one of the most fashionable resorts; fitted in first-class style; cost £600; to a Major man this presents an excellent opportunity to develop with a really first-class pharmacy; not long established; returns now £500.

F. J. BRETT, LEICESTER.

MR. TRIPPIER, Medical Agent and Valuer 79 ISLINGTON, LIVERPOOL.

FOR TRANSFER.

YORKSHIRE (NORTH RIDING).—In a fashionable walled place, an Old-established Family and Dispensing Business, a good-class Wine and Beer Trade attached; the premises extensive and well adapted for doing a large trade; excellent house, stable, coach-house, and warehouse, held on favourable terms; income about £1,000.

LANCASHIRE.—Large manufacturing town, a Dispensing and Prescribing Business; established 25 years; returns £1,000; proprietor retiring; a really good opportunity for a man with £400; some ability and energy could double the returns.

LIVERPOOL.—Established 35 years, a Dispensing, Prescribing, and good-class Retail Business; commanding position, one of the best thoroughfares in the city; proprietor retiring through ill health; will be sold cheap.

LIVERPOOL.—In a rising suburb, established 8 years, a Dispensing and Light Retail Business; handsomely fitted up; good position; to be sold a bargain; proprietor going abroad.

A NEW OLD-ESTABLISHED Dispensing and Medical Business; very profitable; central position; terms easy.

Twenty other Businesses in amounts from £100 to £1,000.

No Commission is charged to Purchasers.

All information on application. To facilitate matters, evidence required on parties applying for the first time.

Lists of Stock for Appraisement receive immediate attention.

HENRY GADD, Member of the Pharmaceutical Society, CHEMISTS' TRANSFER AGENT AND VALEUR, 97 FORE STREET, EXETER.

Full particulars of valuable and high-class Businesses in London and Country sent on receipt of application, per post or otherwise. A call will oblige by stating size of business required.

SALES BY AUCTION, &c.

TO BE SOLD by AUCTION, on Thursday, May 23, a large number of Patents and Sundries, four 100-lb. cases Essence of Lemon, Quinine, about 500 gold-labelled globe stoppered Bottles, and a Glass Cases, all equal to new. Catalogues of the Auctioneer Driver & Perfect, 8 Seven Sisters' Road, Holloway.

TO DRUGGISTS.

TO BE SOLD by PRIVATE TREATY, as a going concern, an old-established (1838) and well-known Drug and Drapery, splendid corner position; main thoroughfare; densely populated neighbourhood; genuine and rare opportunity; satisfactory and reasonable terms; will stand the strictest investigation; mediate purchaser will be sold at a great sacrifice. Particulars the premises to R. H. Kellett, 144 Great Jackson Street, Chester.

FOR DISPOSAL, through ill-health, an old-established Mixed Business in a small Market Town in Somerset; no opposition within five miles; full prices obtained; large double-fronted plate-glass shop; stores; yard; walled-in garden; coach-house and stabling; stock and fixtures at valuation. Full particulars upon applying to A. Z., care of Messrs. Barron & Square, Bush Lane, London.

OLD-ESTABLISHED, neatly fitted, well-stocked corner shop; house attached; £16 clear; returns £328 last year; £6 teeth; no opposition; could be greatly improved; excellent opportunity for prescriber and dentist; paint and cattle medicines; satisfactory reasons given; no reasonable offer refused. Apply, "Statim," Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

CERTAIN FORTUNE to Surgeon or Chemist.—A sober, energetic man, who can pay £50 down, may have a Retail in one of the best positions, in or out of London, to do a bustling business; market position and densely populated neighbourhood; the owner, who cannot attend to it, will accept payment of the balance by easy instalments; rent £60. Apply first at 846 Old Kent Road.

A COMPACT Manufacturing, Drysalting, and Chemical Business in London for Disposal, through the retirement of one of the partners; the travelling partner would remain as traveller on special terms, or allow his capital to remain; good safe, old-established country connection among medicine buyers; the business could be worked to great advantage in connection with another. Address, Frank Kay, 39 Park Street, Stoke Newington, N.

GLASGOW.

F FOR SALE, high-class Dispensing and Retail Business, full priced, in one of the fashionable suburbs of the city. The shop, a corner one, is large, well-stocked, and handsomely fitted up; the most commanding in the district; the opposition is nominal; returns fully £500 per annum; capable of great increase by personal management; being a substantial concern, the strictest investigation allowed, and introduction given; price £500; the present proprietor retiring from the retail trade; to a person possessed of the necessary capital, this is an opening rarely to be met with. Particulars from Evans, Sons & Co., Wholesale Druggists, 56 Hanover Street, Liverpool.

PARTNERSHIP.

SOUTH OF FRANCE.

PARTNER in first-class Dispensing Business; excellent opening for a young man with small capital; splendid central position, large returns, and yearly increasing; favourable terms to a first-class chemist, including right to purchase at any time during 15 years' lease; best London reference. Address, L. M. P. S., care of Messrs. Bowles & Cross, 3 Lambeth Hill, Queen Victoria Street, E.C.

EMPLOYERS WANTING ASSISTANTS.

WANTED, an Apprentice or an Improver. J. B. Clarabut, Chemist, Deal.

A PPRENTICE.—A vacancy for a well-educated youth as above, in a good class business. Full particulars of "Chemicus," Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

A PPRENTICE OR IMPROVER.—Wanted, by a Pharmaceutical Chemist doing a good Dispensing business; must have passed the Preliminary Examination. Address, E. L. Hickey, 199 King's Road, Chelsea, S.W.

W HOLESALE WAREHOUSEMAN WANTED; must have had thorough experience in a good house. Address, P. B., care of Mr. Algar, 11 Clement's Lane, Lombard Street, London.

WANTED, a Junior Assistant, for a first-class trade. State age, experience, salary required (outdoor), and enclose photograph, to be returned A.Z., Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

WANTED, at once, an Assistant for a Select Retail and Dispensing Business; none need apply whose character will not bear the strictest investigation. Apply to R. Twemlow, Chemist, &c., 91 Upper Brook Street, Manchester.

R ANDALL & SON, Southampton, require immediately, an indoor Assistant, age about 22 or 23, with Minor qualification, but willing to take any part; experience in best class trade and high personal character indispensable; salary begin about £40; state age, height, last two situations, &c.

T RAVELLER.—Wanted, an experienced and thoroughly competent Traveller accustomed to call on medical men; must have good address and unexceptional references. Apply, by letter only, addressed S. & Co., care of Allen & Hanburys, Plough Court, Lombard Street, E.C.

WHOLESALE DRUG TRADE.

R EQUIRED, a Traveller for the South Coast, having experience and connection among Surgeons, Hospitals, &c. Apply, with full particulars, to "Traveller," Messrs. Adams Bros., Bury Street, London, E.C.

A N EXPERIENCED ASSISTANT, about 26, as Senior in a good Business house; must be energetic, of good address, thoroughly steady, and reliable; comfortable home; Nonconformist preferred. State age, height, experience, salary (indoors), and when at liberty, enclosing reference and carte (to be returned), Anthony & Biss, Bedford.

P ARISH OF BIRMINGHAM.
APPOINTMENT OF DISPENSER AS ASSISTANT TO THE WORKHOUSE MEDICAL OFFICERS.

T HE GUARDIANS OF THE POOR of this Parish require the services of a DISPENSER at their Workhouse.

No person is qualified to be appointed Dispenser unless he shall have been registered under the Pharmacy Act of 1863, and he will be required to devote his whole time to the service of the Parish.

Salary £130 per annum.

The Dispenser will have to attend at the Workhouse at fixed hours and whenever required for the purpose of dispensing medicines, and he must not accept any other engagement whatsoever. He must also reside within half a mile of the workhouse.

Applications must be made on a Form to be procured at these Offices, and none others will be entertained. The same must be endorsed "Dispenser," and forwarded to me not later than Saturday, the 20th inst.

Canvassing the Guardians will be considered a disqualification.

By Order,

WALTER BOWEN,

CLERK TO THE GUARDIANS.

Parish Offices, Paradise Street,
May 6, 1882.

ASSISTANTS WANTING SITUATIONS.

W ITH Chemist and Dentist; aged 22; capable of doing mechanical dentistry. C. D., 4 Crane Hill, London Road, Ipswich.

W HOLESALE OR RETAIL; aged 31; experienced in both branches good references. E. Martindale, 35 Sweetman Street, Wolverhampton.

A S ASSISTANT; outdoors; aged 25; 6 years' experience in general business; can extract teeth. 183/11, Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

A SSISTANT; Wholesale or Retail; England or abroad; 9 years' experience in Glasgow and neighbourhood; 23 years of age; height 5 feet 9 inches; highest testimonials. H. D., Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

WANTED, a Situation in a first-class Wholesale Drug House, by a young German; 4 years' experience in Germany; fair knowledge of English; bookkeeping, correspondence, and all kinds of office work. Apply, H., Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

A YOUTH, residing in London, who has passed the Preliminary examination of the Pharmaceutical Society, wishes for an Engagement with a Chemist in London or its suburbs; premium moderate. Apply by letter to Mr. Porter, 62 Great Percy Street, Pentonville, London.

T O CHEMISTS, DRUGGISTS, SURGEONS, &c.—A steady man gentleman requires Position as Manager or otherwise; knows business thoroughly; Wholesale and Retail; good references, or security required; town or suburbs preferred. Address, "Chemist," 1A Farm Road, Upper Holloway.

T O THE MINERAL-WATER TRADE.—Wanted, a Situation as Working Foreman; 25 years' experience at home and abroad; thorough competent; accustomed to high-class trade only in cork goods and syrup bottle, knee, or rack; able to take charge in absence of master; aged 39; salary, £2 a week summer, 28s. in winter; 9 years' charge from last employer. J. B., 2 Rushmore Terrace, Leamington.

MISCELLANEOUS.

T O THE AERATED WATER TRADE.—Bottlers & others wanting Situations, Employers requiring Bottlers, &c., write to N. G. Wilcocks, Back Street, Bath. No charge whatever.

O CCUPATION for Gentlemen's Sons on selected Farms in Canada or the United States, where they will be in a good climate entirely self-supporting, and able to start for themselves; premium required £60 to £80. For full particulars, address, American Colonisation Company, 21 Finsbury Pavement.

A CHEMIST of 20 years' experience is prepared at all times to qualify in a few months one or two gentlemen. A thorough knowledge of good Counter business, Dispensary for Surgeon or Chemist, and General Management of Chemist business or of Surgery. For further particulars, apply, Freeason, care of F. Newb Son, 1 King Edward Street, Newgate Street, London, E.C.

S MALL CORKS, 1d. per gross, larger sizes in proportion. These Corks are the solid portion of Patent Hollow Corks cut by machinery for the Aire and C. Glass Bottle Company's Patent Stoppers, 83 Upper Th Street.

STORES versus FAIR TRADE.

T HE only rational mode of competing with Stores Cutting Prices is for Chemists to produce their own Medicines. Specialities; buyers benefit, sellers profit by it. Chemists require tried reliable formulae (collected and proved at great expense) supplied reasonably; satisfaction guaranteed; detailed lists free. note my advertisement in "Exchange Column," page 228; observe price, and terms.

T. BROOKS, Chemist, LOUTH, LINCOLNSHIRE.

GEORGE PATTISON'S LIST OF BATH GLOVES, &c.

pong	Gloves, No. 1	(best white. Retail, 6d.)	4/0 per doz. pairs
pong	Gloves, No. 2	(best white, large, with red binding)	4/8 " "
pong	Gloves, No. 3, C quality (thin white)	3/0 " "	
pong	Gloves, No. 4, C quality (thin white, large, with red binding)	4/0 " "	
pon	ge Gloves, No. 1	or Turkish (best white, extra stout quality, large)	5/0 " "
pon	ge Gloves, No. 2	or Turkish (best white, extra stout quality, medium and small)	4/6 " "
Spon	ge Gloves	(very superior stout white, with red stripes)	6/8 " "
Spon	ge Gloves	(fine quality white, with red stripes)	5/0 " "
Spon	ge Gloves	(cream or unbleached white, soft and spongy)	5/0 " "
Spon	ge Gloves	(crisp, white, with fancy stripes)	5/0 " "
Spon	ge Gloves	(drab, with fancy border, very absorbent)	6/0 " "
le	sh Gloves, or Calefacio, No. 1 (best soft brown)	6/0 " "	
le	sh Gloves, or Calefacio, No. 2 (hard brown)	6/0 " "	
le	sh Gloves, C quality	(soft brown)	5/4 " "
Bath	Gloves	(soft brown, with red and white stripes)	7/0 " "
ath	Gloves	(one side stout white, and the other side best soft brown)	7/0 " "
Bath	Gloves	(white honeycomb)	5/0 " "
Bath	Gloves	(stout grey elastic honeycomb)	6/0 " "
Bath	Gloves	(fancy brown and white)	6/8 " "
Wash	ing Gloves	(fancy pink and white honeycomb. Retail, 6d.)	4/0 " "
Wash	Pads	(various sorts)	6/0 per dozen.
lts	or Straps	(various sorts)	8/0 to 11/0 "

ORIGINAL MANUFACTURER:

GEORGE PATTISON, 139 St. John Street Road, LONDON, E.C.

Inventor and Sole Proprietor of the "LUNG PROTECTOR" (Registered).

Supplied by all Patent Medicine and Wholesale Houses, subject to their usual terms.

THE ORIGINAL

ARNICATED

WHITE FELT

CORN AND BUNION PLASTERS.

INVENTED AND ESTABLISHED BY

HENRY YOUNG,
A.D. 1846,
AND FAVOURABLY KNOWN ALL OVER THE GLOBE.

PRICES—

<u>Arnicated</u> White Felt Corn Plasters.		<u>Arnicated</u> White Felt Bunion Plasters.		
in, 12	box (round 6d. boxes) ...	2/4 per doz. boxes.	Small Thin, 6 in box (round 6d. boxes) ...	2/4 per doz. boxes.
ick, 1	in box (original 1s. fancy boxes) ...	3/4 " "	Thick, 6 in box (original 1s. fancy boxes) ...	3/8 " "
in, 1	gross in box ...	1/10 per gross.	Large Thin, ½ gross in box ...	4/6 per gross.
ick, 1	gross in glass-top box ...	3/0 " "	Thick, ½ gross in glass-top box ...	6/0 " "

SUBJECT TO THE DISCOUNTS ALLOWED BY WHOLESALE HOUSES.

N.B. Please see that YOUNG'S Goods are supplied, as there are many worthless imitations.

an factory, 72 Clerkenwell Road, London, E.C. (late of CARTHUSIAN STREET).

SPECIAL QUOTATIONS.

PERFUMERY
of every known kind.

PRICE LISTS ON APPLICATION.

T. F. BRISTOW & CO.

Wholesale Perfumers & Fancy Soap Makers.

Concentrated (various)
CHOICE ESSENCES

(IN BULK).

No. 30, 12/- for 20 fluid ounces,
No. 24, 9/6 " " "
No. 18, 8/- " " "
AND IN doz.

Corked Bottles .. 3/6 4/- 7/- 8/- 12/-
Sprinklers 4/- 7/6 8/- 12/-
Stop'd Bottles .. 9/- 12/- 14/- 18/-
and upward.

POMADES, &c.

Assorted (tall or squat) 4/- and 8/-	doz.
Nursery (large) 4/- and 9/-	
Lime Juice & Glycerine 4/- and 8/-	
Glycerine and Lime Cream 4/- and 8/-	
Brilliantine 8/- and 12/- (separable and unseparable)	
Brilliantine (White Rose), Stoppered Bottles .. 8/- and 12/-	
Cherry Tooth Paste .. 4/- and 8/-	
Arcia Nut 4/- and 8/-	
Lip Salve, pots & sticks 4/- and 8/-	

Special Soaps in Boxes.

Cold Cream Soap, 3 tablets in box	12/- and 20/-	doz.
Coal Tar Soap, ditto ..	8/- and 12/-	
Carbolic, ditto ..	8/- and 12/-	
Glycerine & Oatmeal do. 8/- and 12/-		
" Transparent, do. 8/- and 12/-		
" and Carbolic, do. 8/- and 12/-		
Lavender (Sweet), do. 8/- and 12/-		
Baby Soap, 4 tablets in box	12/-	
Family Economic, 4 ditto	12/- ditto	
" Family, 12/- ditto	12/- ditto	
Thymol, 3 tabs. in box	8/- and 12/-	

Medicated Soaps

(IN WRAPPERS).	
Carpet & Cloth Soap 3/6 and 7/-	doz.
Dog Soap 3/6 and 7/-	
Coal Tar (Family) 18/- and 27/-	
Carbolic 18/- and 27/-	
Camphrd Winter 27/- and 39/-	
" Fullers' Earth 3/6	doz.
Jewellers 4/-	
Petroleum 4/-	
Purine Stone 3/9	
Juniper Tar 4/-	
Sulphur 4/- and 8/-	
Zinc 4/- and 8/-	

SOAPs (in Bulk).

Almond Brown and White Windsor
Curd
Elder Flower
Glycerine
" and Almond Honey and Almond
Oatmeal Marshmallow
Rose Sunflower
Transparent Glycerine

5 BISHOPSGATE AVENUE, CAMOMILE STREET, LONDON.

RIMMEL'S NEW SANITARY APPLIANCES.



RIMMEL'S AROMATIC OZONIZER, a fragrant powder which, simply spread on a plate in apartments or places of public resort, evolves the refreshing and healthy emanations of the Pine and Eucalyptus, produces a quantity of *Ozone*, the great air purifier. Its clean and portable nature renders it far preferable liquid disinfectants. It is in use in the principal Hotels, Clubs, and Theatres, and also in the Saloons and Cabins of several Lines of Steamships. In 4-oz. Tins, 1s.; 1-lb. Tins, 3s. 6d.; Spreading Plate, 6d.

RIMMEL'S OZONIZED EAU DE COLOGNE, LAVENDER WATER, or FLORAL WATER, sprinkled on a pad hung up in the air, destroys bad smells and noxious effluvia in sick rooms, close &c. It is recommended also to be used on the handkerchief when attending crowded places, visiting the sick, travelling by land or sea. Price, 2s. 6d. and 5s. per Bottle; Pad, 1s.

RIMMEL'S AROMATIC OZONIZED CASSOLETTE, to carry in the pocket and preserve from infection; 6d. N.B.—500 detailed prospectuses, containing certificates and testimonials, sent with name and address to every purchaser 3 dozen Aromatic Ozonizer, 1s. size.

SOLD BY ALL CHEMISTS AND DRUGGISTS. THE USUAL ALLOWANCE TO THE TRADE.

EUGENE RIMMEL, H.R.H. THE PRINCESS OF WALES, 96 STRAND, LONDON

F. A. SARG'S SON & CO.'S CHEMICALLY PURE GLYCERINE AND TOILET GLYCERINE ARTICLES.

Transparent Glycerine Soap,

In registered Packets of three Tablets, and in oval Tablets in paper. Warranted to contain 33% of the purest Glycerine.

Liquid Glycerine Soap,

Best preventive against chapped hands, and unrivalled for imparting softness to them, and rendering them clean and smooth. See Testimonials of Professor J. von Liebig, Baron; and of Professor F. Wöhler.

Sarg's Double Distilled Glycerine, Chemically Pure,

In $\frac{1}{2}$ lb. and 1 lb. Bottles, should have a place in every nursery on account of its salutary action on the heads of children, relieves them from dandruff, and the roughness of the scalp they are so commonly subject to.

Sarg's New Carbolic Glycerine Soap,

In Boxes of three Tablets, is highly recommended as a most effective disinfection.

GLYCERINE, CHEMICALLY PURE

SARG'S DISTILLED CHEMICALLY PURE GLYCERINE, 29° Beaumé, in Cases of Four 56-lb. Tins.

SARG'S DOUBLE DISTILLED GLYCERINE, Chem. pure, 30° Beaumé, in Cases of Four 56-lb. Tins.

Twenty 5-lb. Bottles, Fifty 1-lb. Bottles, and 100 $\frac{1}{2}$ -lb. Bottles, with Registered Label.

SOLD BY ALL WHOLESALE CHEMISTS AND DRUGGISTS.

SOLE WHOLESALE AGENTS FOR THE UNITED KINGDOM AND THE COLONIES,

SCHMEDES, ERBSLOH & CO.,

6 Castle Street, Falcon Square, LONDON, E.C.; 14 Market Buildings, Flinders Lane, MELBOURNE;

34 Pitt Street, SYDNEY.

SPONGE-O-SEASON 1882.

IN CASES, $\frac{1}{2}$ CASES, $\frac{1}{4}$ CASES.

A GUARANTEED NUMBER EACH.

No.	DESCRIPTION.	Pieces per Case.	Price per Case	Price per $\frac{1}{2}$ Case.	Price per $\frac{1}{4}$ Case.
1	HONEYCOMB, SELECTED QUALITY	100	£ 17. d. 8.	£ 8. d. 8.	£ 4. d. 6.
2	FINE " "	100	14. 9.	7. 5.	3. 13.
3	GOOD " "	100	11. 16.	5. 19.	3. 0.
4	SECOND " "	100	9. 4.	4. 13.	2. 7.
5	THIRD " "	100	8. 12.	3. 7.	1. 14.
6	ROUGH, FOR STABLE USE...	100	3. 10.	1. 16.	... ...
7	SELECTED QUALITY	26	7. 10.	3. 16.	... ...
8	GOOD "	26	4. 16.	2. 8.	... ...
9	SELECTED "	18	7. 18.	3. 19.	... ...
10	GOOD "	18	5. 5.	2. 13.	... ...
11	FIRST "	200	4. 8.	2. 5.	... ...
12	SECOND "	210	2. 5.	0. 1.	... ...
13	TURKIE, CUPS, FIRST	40	17. 16.	8. 19.	... ...
14	SECOND "	40	13. 14.	6. 18.	... ...
15	FIRST "	100	31. 12.	15. 16.	7. 19.
16	GOOD "	100	23. 14.	11. 17.	5. 19.
17	SECOND "	100	18. 10.	9. 16.	4. 14.
18	USEFUL PIECES	100	13. 5.	6. 13.	3. 7.
19	FIRST QUALITY	200	13. 18.	7. 0.	3. 10.
20	SECOND "	200	8. 15.	4. 8.	2. 4.
21	SOLID, FIRST "	200	18. 10.	9. 6.	4. 14.
22	SECOND "	200	12. 5.	6. 3.	3. 2.
23	FIRST "	200	10. 12.	5. 7.	2. 14.
24	SECOND "	200	5. 5.	2. 13.	1. 7.
25	BROWN, FINE "	203	5. 18.	3. 0.	1. 11.

S. MAW, SON & THOMPSON request attention to their present Stock of SPONGES, in CASES, $\frac{1}{2}$ CASES, and $\frac{1}{4}$ CASES, which they recommend as more satisfactory than if bought by weight. GOOD SPONGES are very scarce, 20 per cent. dearer than last season, and there is every probability of considerable further advance.

S. MAW, SON & THOMPSON, LONDON.

May, 1882.



P. A. STEVENS,
CHEMIST AND SURGEON DENTIST,
70 Hyde Road, Hoxton,
And 72 Mansfield Road,
HAVERSTOCK HILL, N.W.

REGISTERED—NO. 3745.

Sole Proprietor and Maker of the

PREPARED SILVERY WHITE GUTTA PERCHA ENAMEL,

FOR STOPPING DECAYED TEETH.

SILVERY WHITE GUTTA PERCHA ENAMEL.
36 squares in a box, to Retail at 1d. each; Wholesale Price, 1s. per box.

SILVERY WHITE GUTTA PERCHA ENAMEL.
On Show Card of half-gross, to Retail at 1d., at 6s. per gross.

SILVERY WHITE GUTTA PERCHA ENAMEL.
12 sticks in a glass-lid box, to Retail at 3d.; Wholesale Price, 1s. 3d. per box.

SILVERY WHITE GUTTA PERCHA ENAMEL.
12 sticks in a glass-lid box, each stick enclosed in a Gelatine or Gilt Case; Wholesale Price, 2s. per box.

SILVERY WHITE GUTTA PERCHA ENAMEL.
12 boxes on a Show Card, to Retail at 6d. per box; Wholesale Price, 3s. 6d. per card in a box.

SILVERY WHITE GUTTA PERCHA ENAMEL.
In 1 oz. Sheet, 12s. per dozen.

SILVERY WHITE GUTTA PERCHA ENAMEL.
In 1 oz. Sheet, 3s. 6d. each.

P. A. S. can supply the above to Wholesale Houses, in any quantity, with their Name stamped upon each piece, cut to sticks any length. The above to be obtained of all Wholesale Houses. **PRICE LIST AND SAMPLES SENT POST FREE.** SPECIAL NOTICE.—The words **SILVER WHITE GUTTA PERCHA ENAMEL** are registered as a Trade Mark, and will be protected.

Dr. C. R. Coffin's AMERICAN DENTIFRICE.

Prepared only by WILLIAM DARLING, Chemist, Manchester. May be had from S. Maw, Son, & Thompson; Barclay & Sons; F. Newbery & Sons; Sanger & Sons; and any Wholesale House in London. Price 2s. per Box, and Family Jars 10s. each.

OKELL'S ORIGINAL MONA BOUQUE

Retail, 1/-, 1/9, and 3/6, Wholesale, 9/-, 15/-, and 30/- per doz.

This much-admired Perfume (prepared by the Widow of the late Joseph Okell), may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Applications for WHOLESALE Agencies to be made to the SOLE CONSIGNEE, THOMAS WEST, Chemist, Stretford, Manchester.

TO DENTISTS AND CHEMISTS.—Every description of Artificial Teeth made at greatly reduced charges. Best work and best materials only.

An Upper or Lower Set, inclusive of Teeth Rubber, &c., £1 1s. Ditto, ditto, on Platina, £2 2s.

Send for Price List.

Twenty years' experience in mechanical work.

LESSONS GIVEN IN MECHANICAL DENTISTRY.
F. BUCK, 6 Hanover Place, Upper Baker Street, London, N.W.



This old-established and increasingly favourite Dentifrice has been Fifty Years before the public. It is warranted to retain its properties and keep in good condition in any climate.

The original and only genuine is manufactured solely by

**JEWSBURY and BROWN,
CHEMISTS, MANCHESTER,**

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is attached. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are sold.

Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address card, and directions for enclosure.

WOODS' ARECA NUT TOOTH PASTE.

For Removing Tartar and Whitening the Teeth, without injuring the Enamel. Sold in Pots, at 6d. and 1s. each.

WOODS'

QUININE, CANTHARIDINE, & ROSEMARY HAIR CREAM
(WITH GREASE). Restores the Hair if weak or falling off.
Price 9d., 1s. 6d. and 2s. 6d. per bottle.

WOODS'

QUININE, CANTHARIDINE, & ROSEMARY HAIR WASH
Similar to the above (without grease). Price 1s. 6d. and 2s. 6d. per bottle.

WOODS' DANDRUFF POMADE.

Never fails. 1s. per pot.

Proprietor: **W. WOODS, M.P.S., Chemist, PLYMOUTH**
SOLD WHOLESALE BY ALL LONDON HOUSES.

BEDDARD'S BELGRAVIA TOOTH-PAST

(REGISTERED)

Is entirely different from any article of the kind, very much liked by customers, a most effectual dentifrice, and handsome put up in large jars,

ONE SHILLING EACH:
WHOLESALE OF ALL PATENT HOUSES.

LIBERAL DISCOUNT TO LARGE BUYER

Prepared only by

JOHN BEDDARD,
48 CHURTON ST., BELGRAVE ROAD, LONDON, S.

EWENS' CLARIFIED LARD, MARROW SUETS, AND OILS.

JAMES EWENS & SONS are induced to give further public notice, that where purity of basic ointments, &c., is required, they are most desirable.

By their method of purifying, the fats are not chemically altered, but simply divested of all particles tending to composition, they are consequently available for the delicate preparations.

Adeps. Benz. B. P. and Pharm. Lard (*vide P. J. Vol. No. 8.*) Direct, "for Cash only," from

JAMES EWENS & SONS' CLARIFIED FAT WORK
5 HATFIELD STREET, STAMFORD STREET, S.E.;

Or through any of the Wholesale Houses, with their usual discount at a small advance.

CAUTION.—See that each package bears their label with name and weight.

WHITE AND SOUND TEETH.

JEWSBURY AND BROWN'S ORIENTAL TOOTH PASTE.

This old-established and increasingly favourite Dentifrice has been Fifty Years before the public. It is warranted to retain its properties and keep in good condition in any climate.

The original and only genuine is manufactured solely by

**JEWSBURY and BROWN,
CHEMISTS, MANCHESTER,**

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is attached. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are sold.

Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

SPONGES!

**GOLD MEDAL AWARDED,
BRUSSELS EXHIBITION, 1881,**

TO

R. CRESSWELL & CO.,

SPONGE MERCHANTS & IMPORTERS,

32 Red Lion Square, London;

AND AT PIRÆUS AND SMYRNA.

ESTABLISHED 1850.

Mesrs. R. C. & Co. having secured their supplies on the Fisheries for the year 1882, previous to the general advance of 10 to 15 per cent. in prices, are enabled to maintain their last year's quotations.

**PRICES CURRENT OF SANDED AND SANDLESS SPONGES,
IN ORIGINAL CASES AS IMPORTED.**

HONEY-COMB SPONGES.

No.	Q.	Pieces in case about	Price case. £ s. d.
1	1	Finest selected shapes, assorted sizes ...	130 12 0 0
2	1	Do. do. ...	75 7 0 0
3	1	Do. do. ...	45 4 0 0
4	1	Small selected shapes ...	275 7 0 0
5	1	Superior do. large Bath sizes	25 7 0 0
6	2	Do. quality shapes, assorted sizes...	125 8 0 0
7	2	Do. do. do. ...	75 4 4 0
8	2	Good quality shapes, small ...	275 3 10 0
9	2	Do. do. large Bath sizes	25 5 0 0
10	3	Do. do. assorted sizes ...	145 5 5 0
11	3	Do. do. do. ...	90 3 10 0
12	3	Do. do. large Bath sizes	25 3 0 0
13	4	For Stable use, &c. ...	125 1 5 0

FINE TURKEY SPONGES.

No.	Q.	Pieces in case about	Price case. £ s. d.
1	1	Finest selected Cups, assorted sizes	110 18 0 0
15	1	Do. do. do. ...	55 10 0 0
16	1	Do. do. Bath sizes	35 12 0 0

Fine Turkey Sponges—continued.

No.	Qty.	Pieces in case about	Price case. £ s. d.
17	2nd Superior Cups, assorted sizes	110	12 0 0
18	2nd Do. do. ...	55	7 0 0
19	2nd Do. Bath sizes	35	9 0 0
20	3rd Fine Cups, assorted sizes	110	9 0 0
21	3rd Do. do. ...	65	5 5 0
22	3rd Do. Bath sizes	35	7 0 0
23	1st Turkey Solids, assorted sizes	115	7 0 0
24	2nd Do. do. ...	110	5 10 0
25	1st Flat Saddle, assorted sizes	55	9 10 0
26	1st Do. do. ...	35	6 0 0
27	2nd Do. do. ...	55	6 5 0
28	2nd Do. do. ...	35	4 0 0

BROWN TURKEY SPONGES

29	1st Finest selected, assorted sizes	140	4 10 0
30	1st Do. do. ...	75	2 15 0
31	2nd Superior quality, do. ...	140	3 3 0
32	2nd Do. do. ...	75	2 0 0
33	3rd Slate quality. do. ...	350	1 1 0

The above may be had Sanded or Sandless, as required.

ALL COMMUNICATIONS TO BE ADDRESSED TO LONDON OFFICES



COPYRIGHT—ORIGINAL—AND ONLY GENUINE.

WHITAKER & GROSSMITH'S PURE WHITE GLYCERINE SOAP.

Sickly Perfumed, and guaranteed to contain the necessary quantity of GLYCERINE for effectually imparting to the SKIN the softening and healing properties for which it is so justly famed. 1s. 6d. Boxes of Three Tablets, 12s. per Dozen Boxes.

SELECT TOILET PREPARATIONS, extensively increasing in demand, which attests their excellent quality.

TOILET SOAPS. Per doz.

Cent-Fleur (copyright)	2/6	Boxes of 3 tablets	20/-
Jockey Club	1/6	"	12/-
Sandringham	1/6	"	12/-
Eucalyptus Oil	1/6	"	12/-
Wild Thyme (Thymol) 1/-	"	8/-	Pearl of Perfumes ...
Gum-Cat Bars	1/-	Bars of 6 kinds	8/- Lime Tree Blossoms ...

BOUQUETS. Per doz.

Cent-Fleur (copyright)	... 8/-	12/-	& 20/-
Petroleum Pomade	... 12/-	& 18/-	
Brillantine	... 8/-	12/-	& 20/-
Anglo Eau de Cologne	... 8/-	12/-	& 20/-
Eucalyptus Vinegar	... 12/-	& 20/-	
White Cherry Tooth Paste	8/-	12/-	& 20/-

Trade Price Lists sent and Orders executed through Wholesale Houses, or direct from the Manufacturers,

WHITAKER & GROSSMITH, 22 SILK STREET (REMOVED FROM 129 FORE STREET), LONDON, E.C.

JAMES'S TOILET SPECIALITIES.

JAMES'S HERBAL OINTMENT, for the Cure of Pimples, Black Specks, Blotches, &c., and taking away Tan Freckles, Sunburn, &c. Sold by all Chemists, 1/- and 2/- per box.

JAMES'S DEPILATORY,

For the instant removal of Superfluous Hair. Sold by all Chemists, 1/- per box.

JAMES'S HERBAL POMADE,

For Promoting the Growth of the Hair, Whiskers, Beard, Moustachios, Eyebrows, and Eyelashes. Sold by all Chemists, 1/- and 2/- per box.

These Articles are well worthy the attention of Chemists, Wholesale Houses, and others, as they are being well advertised.

JAMES & CO., 226 Caledonian Rd., LONDON, N.

IRISH HILL MINING COMPANY

Produce from their

EMERALD FULLER'S EARTH QUARRIES

The celebrated and well-known

“EMERALD” BRAND.

It is of superior quality, and will compete with any other. Its advantages are:—Perfectly Soluble, entire freedom from Clay and Iron, and, containing nearly double the absorptive power of any other, it will do double the work.

FULLER'S EARTH.
Supplied in Kiln Dried Lumps or finely ground.
Contracts for Regular Supply taken at low prices.
Impalpable Powder specially for Oil and Colour Men and Domestic uses.

SOLE AGENT:—

GEO. G. BLACKWELL,

26 CHAPEL STREET, LIVERPOOL.

Also all Minerals, Chemicals, and Colours.

GREENSILL'S FAR-FAMED MONA BOUQUET

THE ORIGINAL AND ONLY GENUINE.

The great popularity of this exquisite Perfume is a proof of its excellence and superior qualities.

**T. S. GREENSILL, Chemist, Douglas, Isle of Man,
Inventor, Proprietor, and Maker.**

AGENTS—LONDON: Sanger; Maw; Edwards; Newbery; Mather; Hartley; Whitaker & Grossmith; Hovenden; Parton & Osborne; Butler & Crispe; Tidman & Son; Barron & Squire; Wright, Layman & Umney; Jno. Thompson; Burgoyne, Burbridge & Co.; Grimwade, Ridley & Co.; Evans Brothers, LIVERPOOL: Evans, Sons & Co.; Clay, Dod & Case; Walker & Co.; Raines & Co. MANCHESTER: J. Woolley; Lynch & Moran; Jewsbury & Brown; Mather. EDINBURGH: Duncan & Flockhart. DUBLIN: McMaster; Hodgson. YORK: Sulcliffe & Headley; & Co. Goodall & Backhouse. BIRMINGHAM: Churchill & Son; P. Harris & Co.; Parton & Osborne; Southall Bros. & Barclay. AGENTS FOR CALCUTTA: Smith, Stanistreet & Co. MONTREAL: Sugden, & Co. NEW ZEALAND: Kempthorne, Prosser & Co. MELBOURNE: Wade, Ridley & Co.

Introduced in 1852.

Entered Trade Mark—“Tower of Douglas, Douglas Bay.”

A PERFECT BOON TO MOTHERS!

ROGERS' “NURSERY”

HAIR LOTION.

One application is guaranteed to destroy all Nits and Parasites Children's Heads, and immediately allay the Itching and Irritation.

It is now used in Thousands of Families with the greatest success and all who have tried it are delighted with the effect, a declare it to be worth A GUINNA A BOTTLE.

PREPARED ONLY BY

WILLIAM ROGER CHEMIST,

BEN JONSON ROAD STEPNEY, E.
Sold in large Bottles, price 7d.
SHILLING. Sample Bottle, 1d.

SOLD BY ALL CHEMISTS AND PERFUMERS.

Observe! Genuine only in Yellow Wrapper, White Lid
WHOLESALE AGENTS.—Barclay & Son; Edwards & Son; Maw & Thompson; Millard & Son; Sanger & Sons; Thompson, 121 North Road; Butler & Crispe, Cheapside; Hovenden & Sons, City Road.

LETCHFORD'S CHOICE PERFUMER

DUVAL'S MILK BALSAM for the Hair.

A Pretty Novelty for ordinary daily use. It has the appearance of a balsam and is very agreeable in application, without the greasiness of lime-jelly preparations. It is not liable to separate, and is put up attractive large Bottles at 1s., 1s. 6d., and 2s. 6d.

Also DUVAL'S COSMETIQUE.

LETCHFORD'S Transparent Cosmetique, free from grease in several patterns.

LETCHFORD'S Cream of Limes, well known; Lime Cream, Pomade, and others.

LETCHFORD'S Orchid Perfumes, “THE” Ess. Bouquet, Curious Essence, and all other kinds.

LETCHFORD'S Lavender Water, Florida Water, Eau Cologne, Toilet Vinegar.

LETCHFORD'S Mastic Ink, Cherry Tooth Paste, Glycerine, Jelly, Plated Screw Top Bottles.

Tincture d'Or, 5/- Kittoe's Hair Restorer, 1/- and Morstatts Medicated Soaps, &c.

LETCHFORD & CO.,
Wholesale Perfumers, 63 Wilson Street, Finsbury, E.

Robaire's Aureolin OR GOLDEN HAIR WASH.

The attention of the Trade is respectfully called to the above Article, now having a large sale, and giving an excellent profit to the Retailer.

5/6 size, 36/- per doz. 10/6 size, 72/- per

SOLE WHOLESALE AGENTS—

R. HOVENDEN & SONS, LTD.

SMAW, SON & THOMPSON'S SUPERIOR QUALITY Bath Gloves, Rubbers, &c.

	Gloves. (Pairs.)	Straps.	Pads.	Gloves. (Pairs.)	Straps.	Pads.
CALEACIO OR BADEN, No. 1, soft Brown . . . per doz.	6/4	10/8	6/0	REVERSIBLE, No. 1, one side soft Brown, the other best		
CALEACIO OR BADEN, No. 2, hard Brown . . . per doz.	6/4	10/8	6/0	White Turkish . . . per doz.	7/0	12/0 6/0
CALEACIO OR BADEN, No. 3, soft Brown striped . . . per doz.	6/8	11/4	6/0	REVERSIBLE, No. 2, one side hard Brown, the other White		
CALEACIO (the U.S.), Striped, soft Brown . . . per doz.	6/8	11/4	6/0	Honeycomb . . . per doz.	7/0	12/0 6/0
IONE COMB, White. per doz.	5/4	10/8	5/6	REVERSIBLE, No. 3, one side, Egyptian Loofah, the other best		
TURKISH THIN WHITE GLOVES, per doz. pairs,	4/-			White Turkish, per doz., single	8/0	— —
ALTO BEST QUALITY . . . . .	...	...	"	PADS, per doz. 4/-		
			5/-	"	"	5/6

S. MAW, SON & THOMPSON'S SUPERIOR QUALITY

WATERPROOF CHECK SPONGE BAGS.

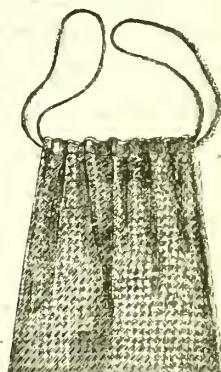
No. 1	2	3	4	5	6	
6	8 x 7	9 x 8	10 x 9	11 x 10	12 x 11 inches.	
/6	9/0	10/6	12/6	14/6	16/6 per dozen.	

For other descriptions, see Quarterly Price Current, page 99.

S. MAW, SON & THOMPSON'S BRIGHTON SPONGE BAGS,

WITH BALL CLASP FASTENINGS, NICKEL-PLATED.

No.	2	3	4	
CHECK	8 x 7	9 x 8	10 x 9 inches.	
PAISLEY	... 16/0	18/0	20/0 per dozen.	
	20/0	22/0	26/0	"



12 ALDERSGATE ST., LONDON.

THE BRIGHTON
SPONGE BAG.

A E I THE MOST PERFECT MARKING INK,

For Writing or Stamping on Linen, Cotton, Silk, &c.

The advantages of this Ink are that it requires no heat, flows freely from the pan, does not blot or run, and cannot be removed without destroying the fabric. Sold in Bottles, 8d., 1s., 2s. 6d., 4s. 6d., 7s. 6d., and 12s. 6d. each, by all Chemists and Medicine Vendors.

WHOLESALE DEPOT—

BAINBRIDGE & POUND, 60 LEATHER LANE, LONDON.

A Liberal Discount to Large Buyers and Shippers.

SPONGE.

M. PETERSON & CO., Importers,
66 SOUTH JOHN STREET,

LIVERPOOL.

For Home, Foreign, and Colonial Markets.
Wholesale only.

PURE SPIRITS OF WINE

FOR
TINCTURES, ESSENCES, PERFUMES, &c.,
OXFORD ROAD DISTILLERY, MANCHESTER.

MESSRS. SMITH & GIBB

Beg to call the attention of CHEMISTS and DRUGGISTS to the under-mentioned Prices of Pure Spirits of Wine:—

Strength per cent.	Specific Gravity.	Price per gallon.
63 over proof ..	0·8238	20/-
60 "	0·8298	20/-
55 "	0·8366	19/-
50 "	0·8482	19/-

Terms—Cash on Delivery. Jars to be returned or paid for.

For Exportation, Cask included, 4/0, 60 O.P., F.O.B.

Orders from the country must be accompanied with a remittance, including the price of the Jars, which are charged as follows:—2 galls. 3/-; 3 galls. 3/6; 4 galls. 4/-; 5 galls. 5/6; 6 galls. 6/-. When the empties are returned the money will be repaid.

GIVEN AWAY WITH

BOND'S CRYSTAL PALACE GOLD MEDAL MARKING INK

(Prepared by the Daughter of the late John Bond),

AN ATTRACTIVE AND NOVEL GOLD SHOWCARD, With Inks affixed, and so constructed that it can be either suspended in Window or used as a Counter Card. Quite a Novelty; or a TRANSPARENT LID BOX OF NEW DESIGN,

By exposing a Card or Box in Window and on Counter, you will find Sales considerably increased.

WHOLESALE TRADE TERMS—Blue Wrapper Ink, 6d., 30s.; 1s., 60s. per gross. Pedestals, 6d., 36s.; 1s., 72s. per gross.



Representation of 6d. and 1s. Blue Wrapper Ink.

NO HEATING REQUIRED. ENLARGEMENT OF BOTTLES

Caution to Wholesale and Retail Vendors.—Costs Damages awarded in actions tried December, 1875, and November, 1876, for selling and manufacturing Colourable Imitations. To secure genuine article please order of your Wholesale House, "BOND'S (Daugh-

ter of the late John) CRYSTAL PALACE MARKING INK."

Works: 75 Southgate Road, London.

CAUTION.—In consequence of daily complaints of other inks being substituted, kindly write full particulars to the Proprietor.

BURROUGH'S

SPIRITUS RECTIFICATUS, P.B.

SPIRITS OF WINE CHEMICALLY PUR.

The Best English Grain Spirit, Free from Fusel Oil.

66 over proof, 20s. per gallon; 60 over proof, 20s. 6d. per gallon; less 6d. per gallon for five gallons. Lower quotations for quantities Cash on delivery or with order. Country Orders must contain remittance or reference to London House.

CALE STREET DISTILLERY, LONDON, S.V.

Also Duty Free for Exportation. Best Methylated Spirits at Lowest Prices.

PHOENIX

ESTABLISHED AD 1815

GENUINE INDELIBLE

MARKING INK

THE LEADING &

STANDARD ARTICLE

PREPARED ONLY BY THE WIDOW OF THE LATE

JOHN MURPHY

CHEMIST AT THE ORIGINAL ESTABLISHMENT

II, NILE STREET, EAST ROAD, HOXTON N.

THE ORIGINAL

TRADE MARK.
Established 1815.

NO OTHER ADDRESS — BEWARE OF WORTHLESS IMITATIONS.

INDEX TO ADVERTISEMENTS,

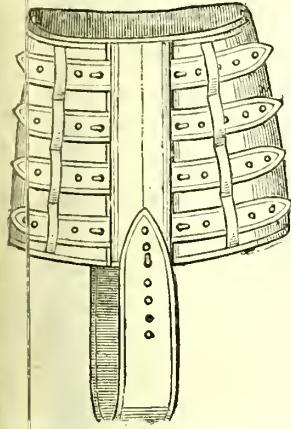
[See pages 21, 22.]

TRADE MARK.

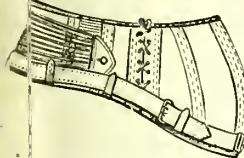
TRADE MARK.

G. F. SNOOK & SON,

WHOLESALE AND EXPORT MANUFACTURERS.



OBSTETRIC BINDER.



LADIES' BELTS.



ROUND-SHOULDER BRACES.



LADIES' BRACES.

WE BEG TO DRAW THE ATTENTION OF CASH BUYERS TO THE FOLLOWING LIST OF GOODS OF OUR OWN MANUFACTURE & SUPERIOR FINISH.

Obstetric Binders.

Ladies' and Gents' Belts of all kinds.

Suspensory Bandages of all kinds.

Elastic Gum Catheters, Bougies, &c.

Magnetic Appliances for all parts of the body.

Toilet and Bath Gloves, in great variety and New Patterns.

Bath Sponge Pads, Belts, &c.

Ladies' and Gents' Braces for Round Shoulders.

Waterproof Sponge Bags, Bathing Caps, Nursing Aprons, &c., &c.

The Genuine Brown Arnicated Felt Corn and Bunion Plasters.

The Genuine White Arnicated Felt Corn and Bunion Plasters.

Court Plaster, in Leather, Fancy Wood, Plaid and Fancy Paper Cases, Envelopes, &c.

Gold Beater's Skin, in Handsome Cases, Wrappers, Envelopes, &c.

Hydropathic Water Compressors for all parts of the body.

Felt Chest & Lung Protectors, of finest Wool and superior finish.

Chamois and Flannel Chest and Lung Protectors.

Respirators of all kinds and of superior manufacture.

Elastic Stockings, &c. Vaccination Shields.

Higginson's Enemas, Perfection Enemas, &c.

India Rubber Urinals, Breast Glasses for self-use.

Glass Syringes. Nipple Shields. Puffs and Boxes.

Gutta Percha Tooth Stopping in all styles, of superior quality.

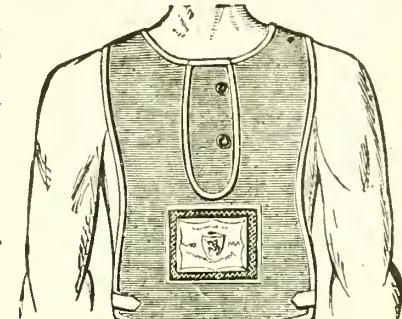
Gutta Percha Tissue.

Superior Extra Perfumed Violet Powder, in Packets, Boxes and Tins of all sizes.

Superior Prepared Fuller's Earth, packed in Round Boxes or Tins.

Insect Powder, from 1d. to 1s. size.

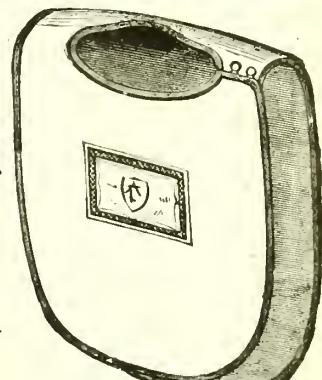
6d. and 1s. Feeding Bottles.



IMPERIAL VEST.



THE UNIQUE ROUND-SHOULDER BRACES.

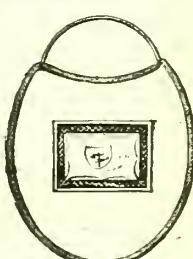


CHEST AND LUNG PROTECTOR.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.*Price List on receipt of Business Card.*

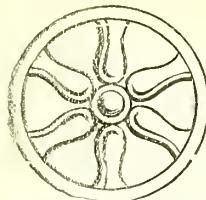
Buyers of Large Parcels may have their own Name on all our Goods.

Agents for Spungio and Impermeable Piline and Oil Silk, Degrave's Corn and Wart Pencils, &c.



CHEST PROTECTORS.

376 & 378 CITY ROAD, LONDON, E.C.



PAUL METZ,
10 JEWIN STREET, ALDERSGATE STREET, LONDON, E.C.
MANUFACTURER OF BEST QUALITY

"WHEEL BRAND" WHITE WILLOW BOXE

Agent for the best Continental Manufacturers of
Chemical Glass and Porcelain Apparatus, Thermometers, &c., Camel-hair Pencils, Sash Tools, &c.

AND SOLE AGENT FOR THE TAMARIND LOZENGES, KANOLDT.

Delicious Medicated Conerves, for the Relief and Cure of Constipation, which will not gripe, and are also other superior to any other similar preparation in the market.

HYDROGEN PEROXIDE.

For Bleaching Hair, Feathers, Wax, Ivory, &c., &c.

12 VOLUMES.

Price 2/- per Pound; 11/6 per Winchester Quart; or 20/- per Gallon.

BOTTLES EXTRA. NET CASH WITH ORDER.

J. BRODIE, Manufacturer,
41 MUSEUM STREET, LONDON, W.C.

GOLDEN HAIR WASH

Produces, by two or three applications, the beautiful Golden Colour so much admired.

WARRANTED PERFECTLY HARMLESS

1/0 size, 6/- per dozen.	Put up in an attractive and saleable form.
2/6 " 15/- "	
3/6 " 21/- "	
5/0 " 30/- "	

J. BRODIE, Manufacturer,
41 MUSEUM STREET, LONDON, W.C.

WHITE FELT CORN AND BUNION PLASTERS

SOLPORT BROTHERS, 68 Shaftesbury St., New North Road, LONDON.

ESTABLISHED 27 YEARS.

SOLPORT BROTHERS are the ORIGINAL MANUFACTURERS of the only genuine White Felt Corn and Bunion Plasters.
PRICE LISTS ON APPLICATION.

ANTAKOS, THE MARVELLOUS CORN CURE.

NOTICE TO THE TRADE.

This Article is now being extensively advertised. All Orders and Communications to be addressed to

THE ANTAKOS COMPY.,
88 FINSBURY PAVEMENT. E.C.

BRECKNELL'S SKIN SOAP

THE MOST SALUBRIOUS SOAP IN USE

BRECKNELL'S SADDLE SOAP

Used in the Royal Stables, by the Army, and in Hunting Establishments.

THE BEST ARTICLE IN USE FOR THE PURPOSE

BRECKNELL TURNER & SONS,
HAYMARKET, LONDON, ENGLAND.

FOULKES' CEMENT, AS USED AT ALL THE GOVERNMENT MUSEUMS.

Suited for any substance, from glass and china to leather, wood, or iron, and the articles joined bear washing in boiling water. The large range of materials to which this cement is applicable, its transparency, strength, and facility in use, and the readiness with which it renders it, without doubt, THE MOST USEFUL EVER INVENTED. It is equally applicable to articles of the coarsest or the most delicate construction.

The great success which attended its introduction, now more than 20 years ago, has given rise to a host of imitations, under as many various names, some of these being of an exceedingly crude character, and most unsatisfactory to both vendor and buyer. The above celebrated Cement is prepared and neatly put up, and is guaranteed to remain unchanged in any climate.

Professor ARCHER, Edinburgh.—"I can testify most unhesitatingly to its great utility in the various occasions which continually arise in work for a first-rate Cement. I have invariably found yours superior to all others, and have extensively recommended its use to all my friends."

Sold in bottles at 8d. and 1s. (equal to three of the smaller).

FOULKES' TOILET & NURSERY POWDER

IMPALPABLE AND DELICATELY PERFUMED.
This unique Powder possesses the emollient properties of fullers' earth, free from colour, and in a high condition of purity.

Dr. ALEX. MILNE, Edinburgh, in his recent book entitled: "The Child, and how to Nurse it," says of this favourite powder, "WE RECOMMEND IT IN PREFERENCE TO ALL OTHERS."

Sold in Boxes at 6d. and 1s. Wholesale at the Patent Medicine Houses and Druggists' Sundriesmen, or from
W. J. FOULKES, OPERATIVE CHEMIST, BIRKENHEAD.

SAVAR'S**PROPRIETARY SPECIALITIES****HOUSEHOLD REQUISITES.—MEDICAL REQUISITES.—TOILET REQUISITES.****TOILET REQUISITES.****SAVAR'S BEARS' GREASE.**—For the Hair. 6d. and 1s. pots.**SAVAR'S BRILLIANTINE**—Delicately perfumed; for imparting lustre and softness to the Hair, Whiskers, and Moustaches, and making Children's Hair luxuriant. 1s. and 2s. 6d. bottles.**SAVAR'S CAMPHOR CASKETS** (Original).—In handsome Perforated Metal Boxes, 1d. each; in Boxwood Caskets, 6d. each, and in Rosewood Caskets, larger, 9d. each. Useful to carry in the pocket for the relief of Influenza, and as a preventative against infection, also to put in Drawers, &c., amongst Clothing of every description, and to keep away Moths and other Insects.**SAVAR'S COAL TAR SOAP.**—An elegant and agreeable Toilet Disinfectant. In 4d. and 6d. tablets.**SAVAR'S COLD CREAM.**—Exquisitely Perfumed with Otto of Roses; for softening and beautifying the Skin, and preventing it from Chapping. 6d. and 1s. pots.**SAVAR'S COSMETIQUES.**—For the Hair; nicely Perfumed. White, Black, and Brown. 6d. boxes.**SAVAR'S COURT PLASTER.**—Superior, which does not wash off, on Black, Flesh Colour, Pink and White Silk. 1d., 2d., 3d., 6d., and 1s. cases.**SAVAR'S EAU DE COLOGNE.**—Of refreshing fragrance; more powerful and cheaper than German. 1s. and 2s. bottles.**SAVAR'S EXTRACT OF LIMES AND GLYCERINE** (Purified).—For Cleaning the Hair and giving it a beautiful gloss. The well-known cooling and cleansing properties of Limes, combined with the hygienic effects of Glycerine on the Skin, render this preparation as agreeable as it is beneficial. In 6d. and 1s. Bottles.**SAVAR'S FLESH GLOVES** (Various).—The frequent use of these Gloves induces a healthy circulation of the blood and a proper action of the pores of the Skin. They may be used either wet or dry, and in either hot or cold water, thus rendering them a great acquisition to the Bath and Toilet. 1s. per pair.**SAVAR'S FOSSILINE POMADE.**—Exquisitely Perfumed with the delicate odours of the Montserrat Lime Tree Blossom. This Pomade does not go rancid, and its use promotes the Growth of the Hair, keeping it sweet and clean, and the Scalp free from Scurf and Dandruff. 6d. and 1s. bottles.**SAVAR'S FOSSILINE TOILET SOAP.**—Highly Emollient, Perfumed as the Pomade. 6d. tablets, 1s. 6d. and 5s. Boxes.**SAVAR'S FLORAL POMADES.**—Exquisitely Perfumed from the following Odours:—Hawthorn Bloom, Lavender, Orange Blossom, Patchouli, Rose, and Rosemary. 6d. and 1s. Bottles.**SAVAR'S GLYCERINE JELLY** (Otto Rose).—For Chapped Hands, Sunburns, and all Irritations of the Skin. 6d. and 1s. jars.**SAVAR'S JEWELLERY REQUISITES.**—For Cleaning Silver, Jewellery, &c.; an elegant adjunct to every Lady's Jewel Box. 1s. each.**SAVAR'S LAVENDER WATER.**—Of superior quality and fragrance. 6d. and 1s. bottles.**SAVAR'S PERFUMERY FOR THE HANDKERCHIEF.**—Of superior strength and quality, consisting of Ess. Bouquet, Frangipanni, Heliotrope, Jasmin, Jockey Club, Marchale, Millefeuilles, Moss Rose, New Mown Hay, Patchouli, Rondeletia, Stephanotis, Tubereuse, Violet, White Rose, Wood Violet, Ylang Ylang. In bottles, 6d., 1s., 2s., and 3s. 6d. each.**SAVAR'S POMADES.**—CANTHARIDINE CREAM stimulates and promotes the Growth of the Hair. CASTOR OIL POMADE for Dressing and Softening the Hair. CRYSTALLISED CREAM for Beautifying and Preserving the Hair. MARROW OIL POMADE promotes the Growth and Luxuriance of the Hair. 6d. and 1s. bottles.**SAVAR'S TOILET COMPANIONS.**—Consisting of an assortment of these Specialities arranged in a neatly-partitioned Box. It forms a convenient and agreeable addition to the Toilet Table, and is peculiarly adapted for a birthday present, or complimentary gift, or Christmas present. 10s. 6d. each.**SAVAR'S VIOLET POWDER.**—Deliciously Perfumed Starch Powder only, quite harmless. In $\frac{1}{4}$ -lb. and $\frac{1}{2}$ -lb. Packets, 1s. 6d. per lb., or fancy 6d. boxes.

A Complete Price Current of Druggists' Sundries, Proprietary Articles, Patent Medicines, &c., supplied on application.

SOLE PROPRIETORS

VINS, SONS & CO., 56 HANOVER STREET, LIVERPOOL.

MANCHESTER OFFICE AND SHOWROOM—1 & 2 Exchange Buildings, Cromford Court, Market Street.

SUDBY EVANS & CO., Montreal, Canada, & Rouse's Point, New York. EVANS, LESCHER & WEBB, London.

NOTICE !!!

THE MOST PROFITABLE BRAND.

THE FIRM OF MARIA CLEMENTINE MARTIN,

NUN

of COLOGNE, having been awarded the SPECIAL FIRST PRIZE MEDAL
for their celebrated

EAU DE COLOGNE

AT THE

SYDNEY EXHIBITION, 1879,

Have now the pleasure to announce to the Public that they have also obtained
the FIRST PRIZE MEDAL at the

MELBOURNE EXHIBITION, 1880.

They trust that the above distinctions conferred upon them by such expert judges will be sufficient
guarantee that the Eau de Cologne of their manufacture is, without doubt, the best. They
will append a List of Prize Medals obtained at other Exhibitions:—

LONDON, 1851 and 1852.

RHENISH PROVINCES, 1852.

NEW YORK, 1853.

PARIS, 1855.

LONDON, 1862.

VIENNA, 1873.

The above firm only export to England their DOUBLE Eau de Cologne, and request their customers in
comparing the prices of the different Brands, to take into consideration that the bulk of those sold under
the white label are Single (or only half strength of the Double), which enables the Makers to sell at
a low price with great profit. If they will trouble to compare the subjoined prices with those of any
manufacturing **Eau de Cologne DOUBLE**, the comparison will be greatly in favour
of our Brand.

PRICE LIST.

		Duty Paid, Net.	In Bond.
No. 1, $\frac{1}{2}$ Shorts	...	8/-	5/-
No. 2, Shorts	...	15/-	10/-
No. 3, " finely Wickered	...	20/-	15/-
No. 4, Long Green Flasks	...	15/-	10/-
No. 5, Wickered Bottles (Small)	...	25/-	17 $\frac{1}{2}$
No. 6, " (Medium)	...	50/-	34 $\frac{1}{2}$
No. 7, " (Large)	...	100/-	69/-

Small Cases assorted to order (of not less than £3 value in bond) delivered free freight, less 7 $\frac{1}{2}$ per cent. discount.

SOLE AGENT FOR GREAT BRITAIN AND IRELAND:

ARTHUR I. JOSEPH, ST. LEONARDS-ON-SEA.

London Depot: 1 & 2 Australian Avenue, London, E.C.

LUNDEBORG'S PERFUMES.

WARNING.—Each of the following Names are secured by Trade Mark. Any one using, imitating, or in any way infringing upon either of them, will be prosecuted to the fullest extent of the law.

TALLY-HO

EDENIA

FASGINATION

MARECHAL NIEL ROSE

We are pleased to acknowledge the very favorable reception accorded to these high class Perfumes by the Trade, and also the flattering encomiums already pronounced upon them, by those best qualified to judge critically of their merits.

For the Proprietors.

BURROUGHS, WELLCOME & Co.,

Sole European Agents, 7, Snow Hill, London, E.C.

THE ONLY GENUINE EAU DE COLOGNE.

In accordance with a Decision of the "Tribunal Civil de la Seine" of the 25th March, 1865, and the Iris Court of Appeal of the 26th April, 1866 (against the Sieur Jean Maria Farina, Julichsplatz No. "maison fondée en 1855"); as also of the "Tribunal de la Seine" of the 4th May, 1877, and the Paris Court of Appeal of the 28th June, 1878 (see the "Gazette de Tribunaux" of the 7th May, 1866, and the 19th July, 1878), the truth is reached by innumerable arguments, viz.: That Johann Paul Feminis, in 1695, invented Eau de Cologne, and left the secret of the manufacture only and alone to his nephew, Johann Anton Farina, "zur Stadt Mailand" ("à la ville de Milan"), Hochstrasse No. 129, Cologne.

Hereby it is therefore established, that neither Johann Maria Farina, "Julichsplatz No. 4," nor Johann Maria Farina, "gegenüber dem Julichsplatz" (according to his own avowal, founded in 1709—therefore fourteen years later than 1695) is the oldest distiller of Eau de Cologne, but that this title lawfully belongs to the undersigned firm, which, through a Decision of the Royal Rhenish Court of Appeal in Cologne, of the 1st February, 1879, is alone authorised to adopt and use as Trade Mark the likeness of Feminis, taken from an original portrait in their possession.

JOHANN ANTON FARINA,

At the Sign of the City of Milan, the oldest Distiller of the ONLY GENUINE EAU DE COLOGNE,
No. 129 HIGH STREET, COLOGNE,
Olde Purveyor to the Royal Court of Prussia by appointment of September 27th, 1817, and August 27th, 1877, &c.



SILVER MEDAL,



PARIS, 1878.

THE

Tin-Plate Decorating Co.,

MANUFACTURERS OF THE NEW

CRYSTALLIZED TIN BOXES,

FOR TOILET AND OTHER PURPOSES.

GOLD MEDAL,



SYDNEY, 1879.

SEAMLESS DECORATED TIN BOXES

Suitable for Blacking, Polishing Paste, Tooth Powder, Pomade, Pills, Lozenges, &c.

DECORATED TIN CANISTERS,

For Disinfectant Powder, Baking Powder, &c., &c., &c.

WORKS: NEATH, SOUTH WALES.**S. R. STEWART & CO.,**

REGISTERED TRADE MARK.

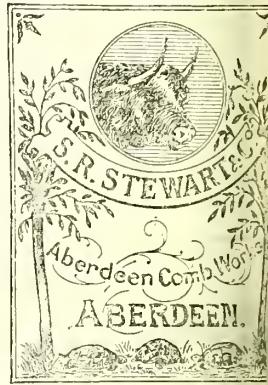
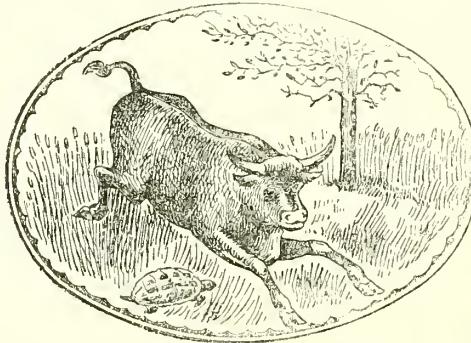
ABERDEEN

COMB WORKS,

ABERDEEN

REGISTERED TRADE MARK.

REGISTERED TRADE MARK.



SPECIALITIES—Rhinoceros Horn Cups, clear as Glass and unbreakable. Pocket Combs, with Mirrors. Pa Cutters and Folders. Druggists' Spatulas, Scoops, and Spoons. Combs to imitate and superior in finish to Ivory. Rhinoceros Horn Combs, unsurpassed for elegance and toughness. Fruit Knives.

AWARDS AT INTERNATIONAL EXHIBITIONS.—London, 1862.—The only Medal for Real and Imitation Tortoiseshell Ladies' H Combs. Vienna, 1873.—The only Medal for Combs of every description. Paris, 1878.—The only Medal for Pure White, Stained, Buff and Rhinoceros Dressing Combs. Sydney, 1880.—The First Prize for Combs of all kinds.

THE ABOVE TRADE MARKS ARE ALL OUR PROPERTY, AND DULY REGISTERED.

SANDS' STANDARD DYES

Are the First and the Best; the Finest Dye and largest Package. 1d. Packets, on Cards, at 7/- gross; and 3d. and 6d. in very neat Counter Cases, with sloping Glass Lid, containing $\frac{1}{2}$ gross 3d. $\frac{1}{4}$ gross 6d., assorted colours—the 3d. at 21/- per gross, and 6d. at 42/- per gross. No charge for Case

SANDS' GOLD PAINT.

Retails at 1/- complete, containing, in box, Gold Powder, Mixing Liquid, Brush, and Palette. 8/- per doz. Finds a ready sale everywhere, being applicable to so many purposes which suggest themselves.

EDISON'S STARCH ENAMEL.

1d., 3d., and 6d. Packets.

PRICE LISTS OF OTHER GOODS SENT FREE ON APPLICATION ENCLOSING TRADE CARDS.
All Goods bear a handsome profit, and any unsaleable exchanged.

SANDS MANUFACTURING COMPANY
121 GOSWELL ROAD, LONDON, E.C.

**A PAINLESS
AND
UIFAILING REMEDY
FOR
THE REMOVAL
OF
CORN AND WARTS.**



Contains no Arsenic or any Injurious Ingredient.

In future this Popular Remedy will be offered as a stamped proprietary article, to retail at $7\frac{1}{2}$ d. each.

Although this preparation has only been before the public for a comparatively short time, and sold unstamped to stand or fall purely on its own merits, the demand for it has been steadily on the increase : this increase is due to those who have tried it recommending it to their friends. We continue to receive letters bearing testimony to its wonderful efficacy.

It is put up in cases containing a Bottle of Paint, Adhesive Plaster, and Camel-hair Pencil, fixed, in dozens, on neatly-bronzed show-cards. Sample free by post, $7\frac{1}{2}$ d.

PREPARED ONLY BY THE INVENTORS,

**J HARGREAVES & SON, CHEMISTS,
108 FYLDE ROAD, PRESTON.**

LONDON DEPOT: 1 & 2 AUSTRALIAN AVENUE, E.C. LIVERPOOL DEPOT: 149 DUKE STREET.

Sold by all Patent Medicine Warehouses and Druggists' Sundriesmen.

AGENTS WANTED IN THE COLONIES.

Patronised by their late Royal Highnesses the Duchess of Kent and the Duchess of Gloucester.

**CORLEY'S GREEN GUM PLAISTERS,
FOR CORNS AND BUNIONS.**

Sold by all Chemists in boxes $1\frac{1}{2}$ and 2/9 each, duty included ; the 2/9 box is equal to three small ones.

Presenting this Corn Plaster to the notice of the Public as a speedy and radical cure for Corns of every kind. T. C. will only state, in its year, that during the first Seven Months of preparing it, by his own recommendation and of those who used it, without a single advertisement, upwards of Three Thousand boxes were sold—a fact, he thinks, fully justifying him in giving it further publicity. But he says they have hitherto used, having declared their Corns to have been completely cured in the short space of ten or fourteen days. Mr. T. CORLEY, Chiropodist to her late Royal Highness the Duchess of Kent, having prepared and sold this Plaster for over fifty years, begs to assure those ladies and gentlemen who may feel a delicacy in trying it that in its nature it is perfectly harmless, and in its effects generally certain. **MAY BE WORN WITH THE TIGHTEST BOOT.**

sole Proprietors, **JAMES CORLEY & CO.,** 38 Alexandra Rd., Addiscombe Rd., Croydon.

Will be sent by post for 14 or 33 stamps.

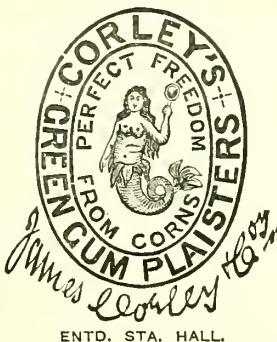
VIDE.

LEGE.

CREDE.

The few following honest testimonials should convince the most sceptical. They are selected from an immense number accumulating year by year, simply as furnishing some proof that these Plasters were as efficacious in the year 1875 as they were thirty years previously, and that they are not impaired by climatic changes, being alike beneficial in tropical, semi-tropical, and more temperate countries.

TRADE MARK.



THE YEAR OF JUBILEE, 1876.

From BREEZE & JAMES, Coburg House, Kensington, May 25, 1884.—Sir.—Be good enough to send by bearer dozen boxes of your Green Gum Plasters for the use of Her Royal Highness the Duchess of Kent, at St. James's Palace. Her Royal Highness has heard of their efficacy.—To Mr. Corley.

BARILLY, NEAR CALCUTTA, May 25, 1845.—Sir.—I find it my duty to acquaint you of the astonishing cures old and troublesome corns performed by your Green Plasters. No one who has not lived in a tropical region can imagine the excruciating agony, on one of these days, caused by a simple corn ; and when I tell you that I have never known your Plasters to fail in giving almost immediate relief and speedy cure, you can easily imagine with what welcome they have been received here. My friends, knowing the great cure effected in my case, easily sought after the last six boxes I received from you. Please forward by return packet six more boxes, and accept my heartfelt thanks.—remain your humble servant, JOSEPH UPTON, Sergeant-Major, 33rd Native Infantry.

Portland, Maine, United States of America, September 5, 1881.—Sir.—Having found your Green Gum Plasters of great efficacy, I would thank you to send me four boxes.—Your humble servant, J. NICHOLS.—To Mr. Corley.—N.B. Please direct to Rev. Dr. Nichols, Portland, Maine.

BOSTON, U.S.A., March 11th, 1851.—Dear Sir.—Will you send me by the steamer from Liverpool ten shillings' worth of your Green Gum Plasters for Corns and Bunions, as I have found them of immense benefit, and would on no account be without them. If you have an Agent in the United States I will thank you to give me his name, as so many of my friends are anxious to obtain the Plasters, knowing how they have cured me.—Yours truly, JOHN TAPPEN.

LATER TESTIMONIAL.

From T. S. TALBOTT, Esq., Foxley Lodge, Romford Road, E., May 3, 1875.—Dear Sir.—Having suffered many years from old and troublesome corns which at times caused me excruciating agony, and finding no permanent relief from the various remedies tried, I certainly became somewhat sceptical. I was, however, induced to try your Green Gum Plasters ; and I feel it only justice to inform you that I received almost immediate relief, and one box has completely cured two virulent corns. Your splendid remedy deserves wide publicity and the greatest success.—Believe me sincerely yours, T. S. TALBOTT.

Immediate Relief, speedy and permanent Cure, if the simple directions are followed.

10, CORLEY'S SOOTHING OINTMENT, for Chilblains, Chaps, Ulcerated Sores, &c.,

Giving immediate relief without the slightest pain.

TESTIMONIALS FROM ALL PARTS

MILLARD, SON & APPLETON'S MUCH ADMIRE

SKIN SOAP

FOR KEEPING THE SKIN CLEAR & SOFT
GUARANTEED PURE -- MANUFACTURED ONLY BY
MILLARD SON & APPLETON. 40. CHARTERHOUSE SQ^{RE}. LONDON E.C.

In Packets, containing 4 Tablets, retail 1s. per Packet.

MILLARD'S Areca Nut Tooth Paste.

In Pots, 6d. and 1s. each, retail.

MILLARD'S Benzine.

In Bottles, 6d. and 1s. each, retail.

MILLARD'S Cherry Tooth Paste.

In Pots, 6d. and 1s. each, retail.

MILLARD'S Dog Soap.

In Tablets, 6d. each, retail.

N.B.—The above command a ready sale wherever introduced.

Catalogue of Patent Medicines and Druggists' Sundries forwarded on application accompanied with Trade Card.

R. H. MILLARD, SON & APPLETON, 40 Charterhouse Square, London, E.

ESTABLISHED 1849.

CURRY, LLOYD & CO.

(Late ALLEN PEARCE & CO.),

DRUGGISTS' SUNDRYMEN,

TRUSS AND SURGICAL APPLIANCE MAKERS,

10 and 11 BATH STREET, BRISTOL.

NEW PRICE LIST (1882) WILL BE SENT ON RECEIPT OF BUSINESS CARD.

Highest Award, Philadelphia, 1876. Gold Medal, Berlin, 1877. Highest Award and only Medal, Paris Exhibition, 1878. Highest Award, Melbourne, 1881. Highest Award and only Medal, Frankfort, 1881.



BROWN'S SATIN POLISH

Put on by Sponge attached to Wire and Cork in each Bottle. No Polishing Brush required. Dries in a few minutes. Can be used by any lady without soiling her fingers.

The "Satin Polish" is the most Elegant Article of the kind ever produced.

LADIES' SHOES, which have become Red and Rough by wearing, are restored to their ORIGINAL COLOUR and LUSTRE, and will not soil the skirts when wet. TARNISHED PATENT LEATHER is improved by it.

For Travelling Bags, Trunks, Harness, Carriage Tops, &c., it is unequalled. It will not stain the Leather nor crack. It is not a spirit varnish. In Cartons, 4s. 6d. per dozen; 52s. per gross. Pack in Sawdust, 3s. 9d. per doz.; 43s. per gross. 2½%.



AMERICAN MAGIC BRONZE

Is the best in the Market, and it can be used with good effect on Ornaments, Picture Frame iron and Fancy Work generally, as well as for Boots and Shoes. In Cartons, 7s. per dozen. 1½%.

SOLD BY ALL WHOLESALE CHEMISTS AND DRUGGISTS' SUNDRIES.

Factories: BOSTON; MONTREAL; 18 & 20 Norman's Buildings, ST. LUKE'S, LONDON.

CAUTION!**A. S. LLOYD'S EUXESIS.**

The attention of the Trade is called to the following distinctive marks on the genuine A. S. LLOYD'S EUXESIS:—

Firstly—My full name, AIMÉE LLOYD, on cap of tube.

Secondly—The words "Prepared by his Widow" in raised letters on top of tube, and in RED INK across labels.

Thirdly—My Address, "No. 3 Spur Street, Leicester Square," London, on both English and French labels.

(Signed) AIMÉE LLOYD
 (Widow of A. S. Lloyd),

Sole Proprietor and Manufacturer of the GENUINE Lloyd's Euxesis.

AGENTS.

Flock & Tilford, NEW YORK. Bradford & Anthony, BOSTON, U.S. Hooper & Co., MONTREAL and TORONTO. Robert & Co., 23 Place Vendome; Mercier, 30 Rue de Faubourg Poissonnier; Loiseau, 25 Place Vendome, PARIS. Barclay & Sons, Iwards & Son, Newbery & Sons, W. Sutton & Co., J. Sanger & Sons, Butler & Crispe, Maw, Son & Thompson, Evans, Lescher & Webb, Low, Son & Haydon, Parton & Osborne, J. Batsford & Co., LONDON. Bewley & Draper, DUBLIN. Raime & Co., EDINBURGH and YORK. Evans, Sons & Co. and J. Thompson, LIVERPOOL. Woolley, Sons & Co., MANCHESTER. W. Foggett, THIRSK. Goulding & Co., CORK.

MOUNSEY'S ORIGINAL PRESTON SMELLING SALTS.

PREPARED ONLY BY HIS SUCCESSOR,

**WILLIAM WILLAN,
CHEMIST,
AT THE OLD ESTABLISHMENT,
FRIARGATE, PRESTON.**

Liberal Terms to Shippers and Large Buyers. Usual Trade Discount.

The Trade should see that the name of "Mounsey" is on the bottles, and "W. Willan, late Mounsey, Chemist, Preston," on the seal which is upon every cork.

TRADE

FOSSILINE

A bland, odourless, perfectly pure Hydro-Carbon Jelly, of greater smoothness, firmer consistency, and better appearance than any other Petroleum Jelly.

SAMPLES POSTAGE FREE ON APPLICATION.

PRICES—In 7-lb., 14-lb., and 28-lb. Tins, 8d. per lb.; in 56-lb. and 112-lb. Drums, 7d. per lb.
Tins and Drums free.

We also Manufacture a **VETERINARY FOSSILINE**, which, at the low price

we offer it, can be used for Smearing Purposes; also for Veterinary Ointments, &c.

PRICES—In 1-cwt. and 1-cwt. Drums, 56/- per cwt. Drums free. Subject to usual Discount.

SOLE PROPRIETORS,

EVANS, SONS & CO.,

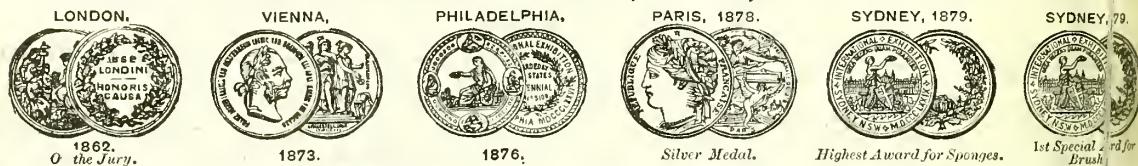
56 Hanover Street, Liverpool.

H. SUGDEN EVANS & CO., Montreal, Canada, and Rouse's Point, NEW YORK.

EVANS, LESCHER & WEB,

60 Bartholomew Close, London.

MELBOURNE EXHIBITION, 1881, SILVER MEDAL.



G. B. KENT & SONS, LONDON.

WAREHOUSES—

11 Great Marlborough
Street, W.

BRUSHES

KENT'S HAIR BRUSHES

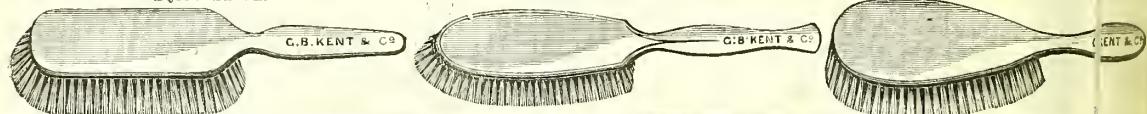
FACTORIES—

Bonner Road, Victoria
Park, E.

BALLOON SHAPE

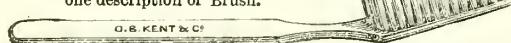
SQUARE SHAPE.

SKITTLE SHAPE.



KENT'S TOOTH BRUSHES

Are manufactured at their Factory at Victoria Park, expressly set apart for this one description of Brush.



Price per doz.

First Quality G.B.Kent & Co. LONDON 6/6

Second Quality Imperial Quality 5/0

Third Quality WARRANTED LONDON 4/0

Fourth Quality WARRANTED SECURE 8/6

Fifth Quality WARRANTED SOUND 8/0

Badger Hair Tooth Brushes .. 4/6 6/0 8/0 11/0 per doz.
Children's .. 3/0 3/6 4/0 ..
Tooth Brush Guards .. Metal, 3/3 Porcelain, 4/6 ..
Japanned Wet Brush Holders .. 3/0 5/6 6/0 13/0 ..

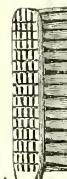
KENT'S CLOTH BRUSHES in WOOD or IVORY.

KENT'S HAT BRUSHES in WOOD or IVORY.

KENT'S FLESH BRUSHES, Handled or Webbed.

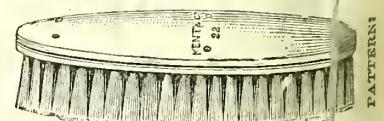
KENT'S SHAVING BRUSHES in Badger Hair, &c., &c.

Speciality for 1881.



THE NOVELTY TOOTH BRUSH
TRIPLE CENTRED AND EXTRA SECURE.
Depot for America: 91 Fulton Street, NEW YORK.

OVAL



KENT'S NAIL BRUSHES.

Bent Back	4/0	7/0	8/6	10/12/0	14/9
Round End	4/0	7/0	8/6	11/13/0	16/0
Roached Grooved	19/0	24/0	28/0	32/0	40/0

Handled Nail Brushes .. 4/0 4/6 7/0 8/0 10/6 12/0 per doz.

Wood .. Trepanned 12/0 16/0 18/0 21/0 24/7/0 per grm.

" .. Fibre 21/0 27/0 30/0 36/0 42/0 48/0 per grm.

No. 22/0	22	23	24
8/6	13/0	17/6	22/0

KENT'S FITTED LEATHER CASES of various descriptions.

KENT'S HAND MIRRORS in Wood and Ivory.

KENT'S COMBS in Ivory, Shell, India-rubber, &c.

KENT'S "NOVELTY" TOOTH BRUSH GUARD
(Telescope pattern, silver-plated.)

G. B. KENT & SONS' Illustrated Price List will be forwarded by post on application.

ESTABLISHED 1843.

THOMPSON & CAPPER,

WHOLESALE AND EXPORT

HOMOEOPATHIC CHEMISTS,

5 Bold St., Liverpool,

AND

51 Piccadilly, Manchester,

ILLUSTRATED PRICE LIST ON APPLICATION.

THOMPSON & CAPPER have now for many years, with the greatest benefit to their Agents throughout the world supplied, *free of cost*, Books for Gratuitous Distribution compiled by themselves, containing complete Directas for using the Homeopathic Medicines, a plentiful distribution of which invariably ensures a large sale. Hand is also, with name, *ad lib.*

THOMPSON & CAPPER'S DENTIFRICE WATER.

Sells well everywhere, its beneficent qualities being attested by physicians in all parts of the world. (See Testimonials.)

In. 6d., 2s. 6d., 4s. 6d., and 8s. 6d. Bottles.

IN THE PRESS.

THIRD EDITION. REVISED AND ENLARGED.

THE
British Homœopathic Pharmacopœia,

PUBLISHED FOR THE

BRITISH HOMŒOPATHIC SOCIETY

BY

E. GOULD & SON,**HOMŒOPATHIC CHEMISTS**

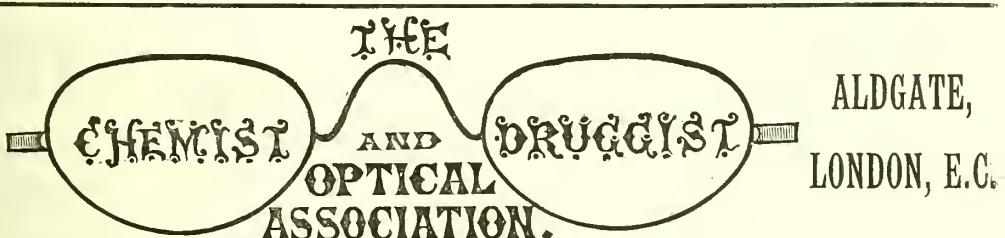
AND

MEDICAL PUBLISHERS,

59 MOORGATE ST., LONDON, E.C.

PRICE LISTS OF MEDICINES, MEDICINE CHESTS, &c.,

POST FREE TO ANY PART OF THE WORLD.

35 EWRY
STREET,ALDGATE,
LONDON, E.C.

THE above Association has been founded by gentlemen experienced in the Optical Trade for the sole purpose of supplying Chemists and Druggists with the celebrated Spectacles of the Association.

The G. D. O. A. are prepared to supply their Customers with Circulars with the latter's name and address on; also Show Cards, Sliding Gauge

testing light, and printed Test Types, which will enable Chemists in a few moments to adapt glasses to their Customers.

The Spectacle Trade will be found one of the most profitable branches in a Chemist's business, as the profits bear 100 per cent., and there is never any ad stock.

The G. D. O. A. feel assured that the public will patronise Chemists with the utmost confidence, inasmuch as the former will naturally expect at Chelmsford are calculated to understand the eye better than the usual spectacle vendors, ironmongers, and watchmakers.

The G. D. O. A. put up Assorted Parcels, and supply therewith, free of charge, Circulars, Show Cards, and Optometers.

For particulars, apply early to **ARTHUR HASSELL, Manager, Chemists and Druggists' Optical Association**

5 JEW STREET, ALDGATE, LONDON, E.C.

M. A. CRAVEN & SON,
WHOLESALE AND EXPORT CONFECTIONERS,

MAKERS OF

Medicated Lozenges, Refined Liquorice, Jujubes, and every description of Confectionery,

IMPORTERS AND MANUFACTURERS OF LEMON, ORANGE, AND CITRON PEELS.

FOR CONFECTIONERY WORKS,

YORK.

Lozenges of all descriptions made from Customers' private formulæ (or ingredients), and stamped with any name or device.

SPECIALTIES—Cough, Peppermint, Rose, Musk, Boquet, Cachou, and all kinds of Medicated Lozenges.

ESTABLISHED 1843.

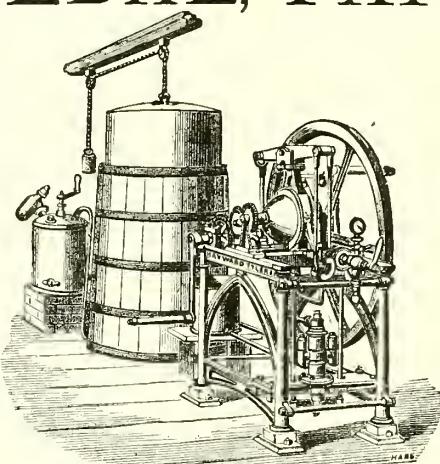
PRICE LIST ON APPLICATION.

SODA WATER MACHINERY,

WITH ALL THE LATEST IMPROVEMENTS.

GOLD MEDAL, PARIS, 1878

2,000 of these Continuous-process Machines have been sold, and many Thirty and Forty Years old are still in good condition and use, showing great durability and excellent finish of workmanship.



Bottling Machines, with and without Syrup Puns; Syphon Fillers, Macdowell's Patent Automatic Bottling Machines, by which one boy or girl can turn out 140 dozen per day.

SOLE MAKERS—
HAYWARD TYLER & CO., ENGINEERS,
WHITECROSS ST., LONDON.

ESTABLISHED 1815.

NOVELTIES IN BOTTLES AND STOPPERS.



THE
GLASS, EBONITE, PORCELAIN, &c.
DISC BOTTLE,

WITH NEW PATENT PURE RINGS,
SIMPLE, PERFECT, UNIQUE.

Likely to supersede all other Patent Bottles.

*The Disc effectually covers the rubber
when the bottle is filled.*

These Bottles and Ebonite and Porcelain Discs can be supplied at a cheaper rate than the Prepared Glass, as No. 1.



OUR ORIGINAL AND WELL-KNOWN
STOPPERS HAVE NOW BEEN
IN USE FOR YEARS BY
UPWARDS OF 1,000

THE SCREW STOPPER & BOTTLE,
For Ales, Porter, Cider, and
Brewed Beer.

The Screw Stoppers can be attached to the necks of the Bottles by a band of wire and a small chain, if preferred; price about 3s. 6d. extra. See Fig. 4.

When bottling, the Stoppers must be wetted before screwing them in. Screw it gently but firmly home.

They should not be subjected to the action of any strong alkali, or great heat, and are not recommended for bottling spirits at present.

Essential and Indispensable for every Refreshment Room Proprietor, for every Hotel and Public-house, and for every Householder.

Our other, and well-known Stoppers, &c., still supplied as usual.

SAMPLES ON APPLICATION.



MINERAL WATER MANUFACTURERS
AND OTHERS THROUGHOUT
THE UNITED KINGDOM
AND THE WORLD.

BARRETT & ELERS, 9 Dacre Street, Westminster, LONDON, S.W.

EARNETT & FOSTER,

23rd FORSTON STREET, SHEPHERDESS WALK, LONDON, N.

PRIZE MEDALS:

LONDON, 1862-73-4; VIENNA, 1873; PHILADELPHIA, 1876; CAPE, 1877;
PARIS, 1867-78; HIGHEST AWARD, SYDNEY, 1879-80.

Send for Illustrated Catalogue, forwarded free.

SODA WATER MACHINERY

OF THE BEST MAKE ONLY.

Our Machines are universally adopted throughout the world for the manufacture of all kinds of Aerated Drinks, whether in Bottles, Syphons, or Counter Fountains. There are in England alone over 1,500 factories where our Machinery is in use. They are the simplest, safest, and cheapest for the purpose, and produce a highly charged gaseous water free from metallic or foreign contamination at a cost almost nominal.

All our Machines have a Gasometer, and it forms a most important necessity where purity of product is required, as in this the gas is expanded and purified; it also removes the possibility of explosion, and avoids the necessity of complicating a few inches of floor space.

THE LONDON-MADE" SYPHON BOTTLE.

PRICES—

24s.; Pint size, 22s.; $\frac{1}{2}$ -Pint size (Pear shape), 21s. per dozen.

THE high reputation this bottle has achieved is due to its being in every particular the most perfect introduced, and when compared with others in the market it stands pre-eminent.

It is the most simple in its working parts, therefore the least liable to get out of order; it is the most easily opened, the lightest pressure on the lever being sufficient; it produces a more highly charged gaseous water

is usually obtained from syphons; it compares most favourably in appearance with any, and the metal top being entirely free from lead, the prejudice against syphon drinks is removed, as the liquid passes over pure tin only.



SOLE AGENTS FOR

CODD'S PATENT SODA WATER BOTTLE.

To whom all Export Orders must be sent.

The Home Orders may be sent through any of the Licensed Bottle Makers.

THIS Bottle for containing Aerated Waters is the most efficient of any yet invented, and is above all the one most appreciated by the public.

As compared with other Patent Bottles, it stands pre-eminent—there is no taste from rubber, the stopper being a glass ball; the internal pressure keeps this firm against the elastic collar in the neck. The Stopper does not fall into the Gaseous Waters, so that the Water retains its full Gaseous properties when emptied into a tumbler.



Inventors and Patentees of the Fashionable Drink,

"FRUIT CHAMPAGNES."

Lemon, Orange, Pear, Pine Apple, Raspberry, Strawberry, Ginger.

It is advisable to send for a Sample Case in first place to test the merits, after which fuller information as to cost, profit, license, &c., will be given upon application.

The most popular products of our orchards have now been converted into the most delightful of beverages, and a new and permanent addition has been thus made to the existing gamut of delicious flavours.

These Champagnes, although in themselves devoid of alcoholic properties, possess sparkling qualities and an exquisitely soft flavour, and excite but do not satiate the palate.

Upon receipt of 7s., Sample Case will be forwarded, containing one dozen assorted pint "Fruit Champagnes."

Upon approval and for future orders, the name of the nearest Licensed Bottler will be given upon application to above.



Licence granted for the right to Manufacture, and all information given upon payment of an annual nominal Royalty,

GLASS BOTTLES

OF EVERY DESCRIPTION FOR THE MINERAL WATER TRADE.

CHEMISTS, PERFUMERS, &c.

SYPHONS

OF THE BEST FRENCH MANUFACTURE.

Cash Buyers should apply for Samples and Prices before placing their Orders.

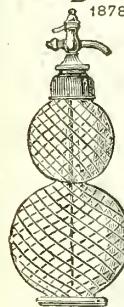
J. MOUNTAIN & CO.,
83 FINSBURY PAVEMENT, LONDON, E.C.
ESTABLISHED 1853.



EUGENE GERAUT & CO.



SELTZOGENES.



1878. For immediate production of Eau de Vichy, Soda Water, Sparkling Lemonade, and Aerated Waters. First introduced by EUGENE GERAUT & CO, in 1853.

3-pint Size, Wire,	13/0;	Cane,	13/6
5-pint ", "	18/0;	"	19/0
8-pint ", "	30/0;	"	32/0
Strongly silver-plated top, 5/- each extra.			
3-pint size, strongly silver-plated, richly decorated porcelain stands, 30/- each ; 5-pint size, ditto, ditto, 38/- each ; 8-pint size, ditto, ditto, 48/- each.			

Our well-known Seltzogenes are improved yearly, and have already stood a public test of upwards of Twenty Years, and are acknowledged as THE VERY BEST.

POWDERS FOR THE ABOVE :—3-pint, per dozen boxes, 22/-; 5-pint, ditto, 36/-; 8-pint, ditto, 65/-.

Illustrated Catalogue on application. Large Discount.
1 & 2 Corporation Buildings, Farringdon Road, London, E.C.



SYPHONS.

Clear or coloured glass, pure ENGLISH BLOCK TIN TOPS, with piston or cap.

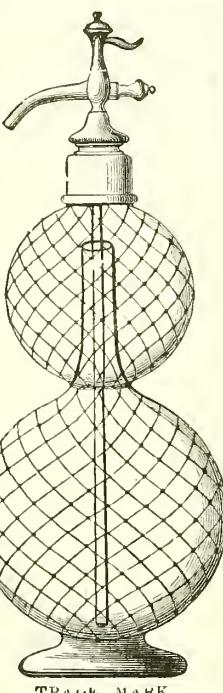
22/6

per dozen, for quantities of not less than one gross.

Packing in Cask, 5/- per gross.

The Name marked on the metals free of charge for quantities of not less than one gross.

The Name engraved with Trade Mark, from 1/6 to 2/- per dozen extra.



TRADE MARK.

MELBOURNE EXHIBITION,
FIRST ORDER of MERIT awarded to THESSIER-FÈVRE.

CELEBRATED D. FÈVRE SELTZOGÈNES & POWDERS

For immediate production of Soda Water, Eau de Vichy, Sparkling Lemonade, and Aerated Wines.

D. FÈVRE, 398 RUE ST. HONORÉ, PARIS,
Sole Inventor and Proprietor of the Article and Name "SELTZOGÈNE,"

THESSIER-FÈVRE. Son-in-Law, Manufacturer.

WHOLESALE PRICES.

Celebrated
D. Fèvre Seltzogene.

Case and Packing

" " ...

" " ...

Celebrated
D. Fèvre Powders

for the Seltzogenes.

Pure Tartaric Acid and
Bicarbonate of Soda,
in the highest state of perfection.

3 pint, wire covered	...	...	12s. 0d. each.
3 pint, cane covered	...	...	12s. 6d. ,
5 pint, wire covered	...	...	18s. 0d. ,
5 pint, cane covered	...	...	19s. 0d. ,
8 pint, wire covered	...	...	30s. 0d. ,

12 Seltzogenes, 3 pint size	...	4s. 0d. net.
12 "	5 "	5s. 8d. ,
6 "	8 "	9s. 8d. ,

3 pint, per doz. boxes of 12 charges,	24s. 0d.	liberal account allowed.
5 "	36s. 0d.	
8 "	60s. 0d.	

3 pint, per doz. boxes of 10 charges,	20s. 6d.	liberal account allowed.
5 "	30s. 6d.	
8 "	45s. 2d.	

EXTRA :—Taps, Tubes, Valves, Washers, &c.

DIRECTION FOR REPAIRS.

Drip Catchers, Fittings, Measures, &c.

ALL

MY GOODS ARE TESTED
ILLUSTRATED CATALOGUE FORWARDED FREE

REGISTERED.



H. FAVARGER

has much pleasure in informing those contemplating entering the Soda Water business that new and extensive plant has just been laid down for producing, in large numbers, the various sizes of

SODA WATER MACHINES ON THE PATENT MONDOLLOT SYSTEM,

The chief features of which are the entire suppression of the Gasometer, economy of materials and space, and saving of labour.

N.B Every Machine is fitted with two large Purifiers, in which the Gas is thoroughly cleansed from all impurities and is allowed to expand itself.

In this system there is

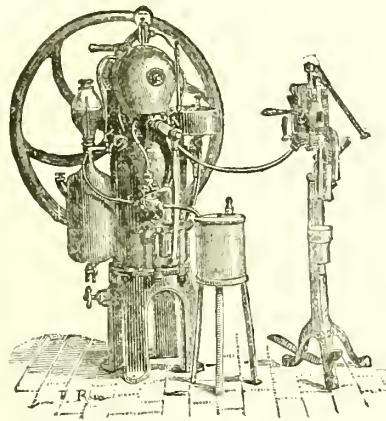
No Gasometer.

No danger of Explosion.

Skilled Labour required.

No previous knowledge necessary.

"There is no ordinary generator or gasometer in connection with this machine, and therein lies the secret of its advantage over the ordinary English Machines,"—*The Mine Water Trade Recorder and Advocate*.



The "MEDIUM," with Filler.

These Machines are made to any size, but the most usual in demand are—

The "GEM" (No. 0, price £38).

This is a small but complete plant in itself, which is capable of making upwards of 100 dozen of first-class aerated waters in the day. It is sent out tested and fitted ready for work, and is accompanied by all the necessary accessories.

Mr. H. Favarger.—Dear Sir,—It is with much pleasure I can testify to the excellent working of your No. 0 Machine. It has been constantly at work, and nothing ever goes wrong. It has produced 100 dozen splendid aerated beverages per day. I consider it a Perfect Little Gem.—I am, dear Sir, yours truly, (Signed) JAMES DEAN.

The "MEDIUM" (No. 1, price £46).

A very useful size, comprising the whole apparatus for producing 150 dozen of first-class aerated waters daily. It consists of an automatic generator fitted with water safety-valve, gun-metal pump, copper saturator heavily tinned, copper purifier, glass purifier, pressure and water gauges, and it is sent out complete, with solution pan fitted with glass ball cock and stand, spanners, funnels, and all accessories.

Mr. H. Favarger.—Dear Sir,—We have much pleasure in stating that the Soda Water Machine we had from you about three months since does its work admirably and we are perfectly satisfied with it. We also find your double filling machine a great improvement to the one we had previously been using.—We are, dear Sir, yours very truly, (Signed) JOHN SARSON & SONS.

HOTEL STREET, LEICESTER : December 22nd, 1880.

The "ACME" (No. 2, price £67).

Similar in every detail to the "MEDIUM," but it is larger in every respect, and is made to turn out 300 dozen of the finest aerated waters in a day. It is sent out complete with all accessories.

Mr. H. Favarger.—Dear Sir,—It affords us great pleasure to testify to the perfect manner in which your machine (type No. 2) supplied to us has hitherto answered our expectations. We consider your type of machine to be the best in the market, as it is the only one that avoids the necessity of a Gasometer and Gas Stowage, and we believe that, owing to the carbonic acid being forced into the water in the form of a foam, we are able to bottle at a much lower pressure than those who under the name of "gas" draw gas from a Gasometer, which, owing to atmospheric variation, is frequently in a rarefied form, and necessarily of less strength. Although your machine to the uninitiated to be complicated, it is in use found to be most simple, easily understood and managed. The machine you supplied to us has now a whole season, has needed no repairs, and, properly charged, invariably works well.—We remain, yours faithfully, (Signed) C. D. BARKER & CO., Chemists and Mineral Water Manufacturers.

(Since this report was written the machine has been working perfectly.)

THE ABOVE SIZES ARE THE MOST SUITABLE FOR CHEMISTS.

Full particulars of the "STANDARD" and all larger sizes on application.

EVERY MACHINE GUARANTEED.

For full particulars of these Machines, and of all the various requisites for the Trade, apply to

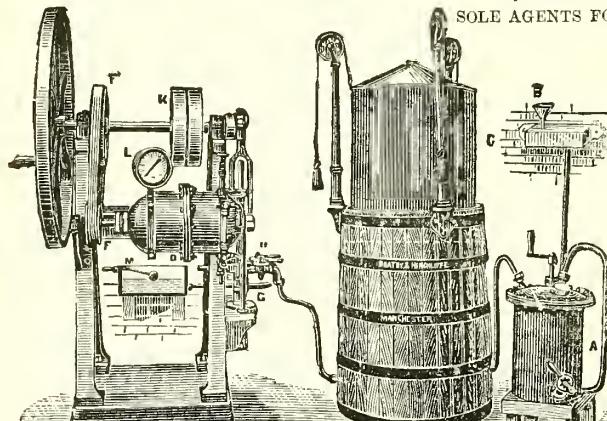
FAVARGER, 75c TURNMILL STREET, LONDON.

SODA WATER MACHINERY,

AND ALL ACCESSORIES USED IN THE TRADE, BY

BRATBY & HINCHLIFFE, 43^c Pott St., Ancoats, Manchester,

SOLE AGENTS FOR JAMES GALLOWAY, OF BOLTON, AND HIS NOW FAMOUS



BRATBY & HINCHLIFFE, 43^c Pott St., Ancoats, MANCHESTER.

Lilliputian Soda Water Plat.

See Engraving,

Which is made specially for new beginners & small dist.

No. 1 Plant makes 400 doz. per day, and is fitted with 1½ Pump and 2 gall. Cylinder, with Gasometer and Generator. PRICE £52 10s. No extra.

No. 2 Plant makes 600 doz. per day, and is fitted with 2½ Pump and 4 gall. Cylinder, with Gasometer and Generator. PRICE £63. No extra.

Descriptive Circular forwarded post free on application.

Every Purchaser of Soda Water Machinery should receive "MONTHLY LIST" of New and Secondhand Appliances, &c. in our Circular and Price List of Specially Prepared *Derezin Soluble Essences and Essential Oils* and other Drugs used by the Trade, which are much stronger and 30 per cent. cheaper than is usually offered.

SYPHONS.

H. FAVARGER has much pleasure in announcing that, encouraged by the enormous demand last season for the well-known MONDOLLOT SYPHONS, he has made special arrangements for the prompt supply of these convenient vessels. Nevertheless, he would remind his customers, and also intending purchasers, that it is greatly to their advantage to order early, as then the necessary time can be given for an especially well finished article to be turned out.

The few following are the leading points of these Syphons:—

THE TOP is of pure tin, which is warranted to contain no trace of lead, copper or other injurious metal. It is carefully turned and polished.

THE SPOUT is cast in one piece with the top, and not soldered on, so that it is almost impossible to break it off.

Its curved shape also facilitates the egress of water, thereby preventing to a great extent the loss of gas which occurs whenever the flow of aerated water is obstructed by sharp angles.

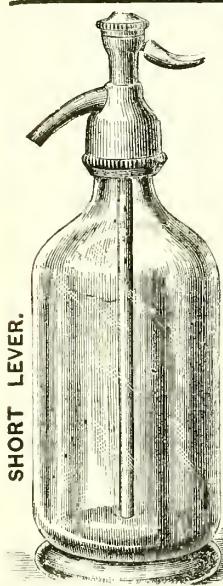
THE LEVER, usually a source of trouble from constant breakage, is specially made to resist heavy blows, being of great thickness and strength at the point of contact with the head of the syphon.

THE PISTONS are of pure tin.

PRICES.—Short Lever Cylindrical White or Blue Glass, 26/- per dozen. Long Lever Cylindrical White or Blue Glass, 27/- per dozen. Special terms for large quantities. Name on head free. Silvering from 12s. per dozen. Nickelizing by new process, 4s. per dozen. For Samples and further particulars apply to

H. FAVARGER, 75^c TURMILL STREET, LONDON.

SHORT LEVER.



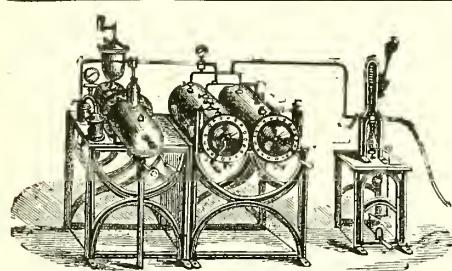
SODA WATER MACHINERY,

ALL KINDS.

PATENT STOPPERED BOTTLES

ALL KINDS.

ICE-MAKING MACHINES,



SODA WATER MACHINE COMPLETE, WITH RACK.

AND ALL REQUIREMENTS OF EITHER TRADE.
SEPARATE CATALOGUES, POST FREE.

BEFORE BUYING, SEND FOR CATALOGUE TO

DAVENPORT & CO., 99ⁿ High Holborn, LONDON.

ALSO AGENTS FOR

HAYWARD TYLER & CO.'S MACHINERY.
BARRETT'S PATENT BOTTLES.

CROSSLEY'S

AND "BISSCHOP" GAS ENGINES.

CHEAVIN'S FILTERS.

WILKINSON'S PATENT BEER BOTTLES.

ADVERTISE A GOOD THING.—SHAKESPEARE.

INTERING VALUE — **LOW PRICES—STEADY PROGRESS—INCREASED SALE**

Characterise **WILCOCKS'** High-class

SODA WATER MACHINES AND BOTTLING APPARATUS.

(WORKS: BACK STREET, BATH.)

REMARKABLE TESTIMONIAL.—At one of the
sessions at the Agricultural Hall the pub-
lication of our journal (THE CHEMIST AND
DRUGGIST) was talking to me at my stand,
when a gentleman unknown to me came up,
without any preamble (after asking if
it was Mr. Wilcocks), expressed his great satis-
faction with one of my full-sized "Favourite"
machines, which he had seen advertised in
THE CHEMIST AND DRUGGIST, and had con-
sequently purchased.

RECENT CASE.—We had a customer here
recently go from Sleaford, who had been
recommended to us by a previous purchaser
of our new machines. Our new customer would have
him exactly like the one he had seen, and
asked for the new pattern. We made one
on his pattern.

court investigation of our machines.
of our success result from the recommenda-
tions of previous customers; and we can
mention numerous cases of clients who have
had many seltzer water factories and
placed their orders with us.

shall be obliged if any one thinking of
engaging in business will write to us.
Our business results or not we shall be
glad to have an opportunity of quoting and
g.

who may be prejudiced against our
machines by reason of their low prices are
invited to examine closely into our factory and
machinery in process of construction
stages. We are also favoured by several
customers with permission to introduce
our machines to their works, where our
machines can be seen at work.

has a machine in daily use here, making
for workpeople only. This can
be seen and we furnish recipes and all
instruction to every purchaser.

"THE FAVOURITE."

NEW PATTERNS FOR 1882.

All Wilcocks' "Favourite" Machines are made on
the Bramah Principle, pure and simple, and they
produce a highly-charged gaseous water.

The forged cranks are of best wrought iron, of immense strength, in massive cast-iron standards with big fly-wheels. The condenser, toothed wheels and pump, and index cocks are of best selected polished gun-metal, and are unrivalled as specimens of the founder's art. The condensers are fitted with agitators after the approved mode, and carefully lined with the best obtainable English tin, after the approved mode. They are fitted together with bolts and nuts, so that they can be easily taken apart for examination. The plunger of the pump works up underneath the pump, through a ring or collar of the capped leather valve-box at the top of the pump.

An important feature in our machines is the goodly size, as well as the strength, of our gas work. The generator is made of stout lead; one end is easily removable, being fastened on with bolts and nuts; the shaft is of wrought copper, on which are fixed gun-metal rousers, and the connections, inlet and outlet, &c., are of gun-metal; the tuhs of stout oak strongly hooped; and the gasholder of copper. These machines have had our constant study for years past; beautiful in design, and carefully finished, and will bear comparison with any machine in the market.

WE HAVE NOT ADVANCED OUR PRICES.

Wilcocks' Full-size "The Favourite," Bramah Principle, Soda Water Machine, with 1½-in. Pump and Gun-metal Polished 2-gallon Condenser, and extra size Gasometer and Generator, with Strap Pulley and Handle, Dial Pressure and Water Gauges, Quadrant, Corking Rack for filling corked bottles, and "Eclipse" Filling Machine, on stand, for patent internal stopper bottles (Solution Pan is fitted with Buoy Valve, all pipes fitted and tested here by actual work before sent off), and Spanners ...	£58 0 0
If packed in three extra strong iron-bound cross-battened cases for export, total weight one ton, add extra ...	£4 10 0
Ditto, as above, to make 600 dozen per day, with 2-in. Pump and 3-gallon Condenser, &c., with Gas work and Two Racks	£68 0 0
If packed in three extra strong iron-bound cross-battened cases for export, add extra ...	£6 10 0
Ditto, as above, to make 1,000 dozen per day, with 2½-in. Pump and 4½-gallon Condenser, &c., with Gas work and Two Racks	£80 0 0
If packed in three extra strong iron-bound cross-battened cases for export, add extra ...	£7 10 0
Ditto, as above, to make 1,500 dozen per day, with 2¾-in. Pump and 7½-gallon Condenser, with Gas work and Two Racks	£111 10 0
If packed in three extra strong iron-bound cross-battened cases for export, add extra ...	£9 10 0
Ditto, as above, to make 200 dozen per day, with 1½-in. Pump and 1¼-gallon Condenser, with Gas work and Two Racks	£45 10 0
If packed in three extra strong iron-bound cross-battened cases for export, add extra ...	£3 15 0

Wilcocks' "Eclipse" Filling Machine for all the internal Stopper Bottles. We invite attention of Bottlers, as we believe it to be the Simplest and best in the Market. Is now made from all New Patterns for 1882, and cannot get out of order. A boy or girl can work it as well as a man.

Railway carriage Paid.
Terms, 5/- per dozen in
quarterly account,
5 per cent discount on
cash with order.



Retail, 6/- per dozen
bottles included.
Circulars and Showcards
free.

NOTICE.

TO ALL CHEMISTS AND DRUGGISTS
IN THE KINGDOM.

THE SHELFANGER.—This delightful
effervescent Antacid and Tonic Table
Water, after March 1st, 1882, can only be
obtained direct from the Spring, in Cases
of 3 dozen each, half-pints.

PROPRIETOR—
“SHELFANGER” SPRING, NEAR DISS.

FOREIGN
Mineral Waters and Zoedone.

FREERICKSHALL (5 Cases, 6d. per Case
less), 34/- Case, 30 bot.; 3/- Case, 60 ½-bot.

POLLINARIS (10 Hrps., 1/- and 1½ less),
2/- Case, 50 bot.; 36/- Hrps., 100 ½-bot.
Hampers free.

HUNYADI JANOS (10 Cases, 3/- and 5/- less),
30/- Case, 25 bts.; 50/- Case, 50 ½-bts.

SELTZER — — — 11/- Hrps., 25 bts.

" — — — 15/- Hrps., 50 ½-bts.

PULLNA — — — 18/- Case, 20 bts.

" — — — 30/- Case, 50 ½-bts.

VICHY — — — 31/- " 50 bts.

" — — — 27/- " 50 ½-bts.

CARLSBAD — — — 37/- " 50 bts.

KISSENEN — — — 42/- " 50 "

SCHWALLBACH — — — 27/- " 50 "

HOMBURG — — — 37/- " 50 "

WILDUNGEN — — — 40/- " 50 "

CARLSBAD SALTS, 1½-Bots., 20/- per doz.;

½-Bots., 40/- per doz.; Bot., 80/- per doz.

ZOEDONE, 5/- per doz., 6-doz. Cases (if

5 Cases, 2d., 10 Cases, 3d., 20 Cases, 4d. per
doz. less).

Discovered by a Member of the Royal College of Surgeons of England.

This natural Antacid and Tonic Mineral Water claims to be a most valuable medicinal beverage, in that it possesses the proper proportion of the Carbonates of Magnesia and Iron, which can neither relax nor bind the system, exerting the tonic and invigorating virtue of Iron and corrective property of Magnesia. The proportion of these most important ingredients is such that it may be taken as ordinary Table Water, being, in short, simple, effective, safe, and agreeable. *Alkaline Chalybeate.* It is particularly recommended by some eminent members of the medical profession for the cure of Diathesis, Anæmia, Debility, and Weak Digestion, and when a constitution requires Tonicity and Vigour. Epilepsy and Hemiplegia have been materially benefited under its dietary use, showing it to be of great value in imparting tone to the nervous system. The Water, which may be procured from the above Mineral Water Importers, and on recommendation of medical men. Invalids of the upper class are received at the Spring, where the climate is invigorating, and consumption unknown; and in a county where more than 80 persons have outlived their 100th year within a period of 40 years.—White's *History of Norfolk.*

Extract from Analytical Report by Professor ATTFIELD, Ph.D., F.R.S., F.I.C., F.C.S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain.

“The ‘Shelfanger’ is a valuable Magnesian Antacid and mild Chalybeate Water.”—JOHN ATTFIELD.

From THOS. COLE, Esq., M.D., M.R.C.P., Lond., Physician to the Royal United Hospital, Bath.

“The Shelfanger Mineral Water is Antacid and Chalybeate. I would therefore strongly recommend it in Dyspeptic conditions, Suppressed Gout, and Anæmia.”

From CHAS. WHITBY, Esq., M.B., Leamington.

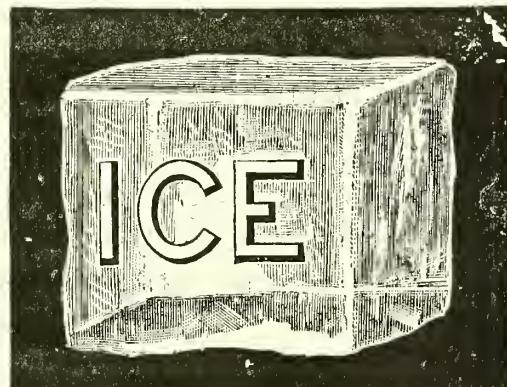
“I am much inclined to believe that the Shelfanger Mineral Water will ere long become a popular beverage for Gouty, Debilitated, and Anæmic Invalids.”

From FREDK. THORNE, Esq., M.R.C.S., &c.

“I have tried the Shelfanger Mineral Water, and find that it possesses all the characteristics claimed for it, it is, moreover, very agreeable, which cannot be said of most Chalybeates.”

PROPRIETOR—

THE “SHELFANGER” MINERAL SPRING. NR. DISS.



Norway Block Ice.

Packing and Mats for Original Blocks, 3d. each allowed for Mats if return.

Present Season's Ice specially fine and thick. Low quotations given for quotes taken from vessels while discharging.

PRINTED DIRECTIONS for SENDING
ICE sent free on application.

W. B. HARRISON,

IMPORTER OF ICE AND
MINERAL WATERS,

6 Bridge Street, Sunderland.

JEWSBURY & BROWNS MANCHESTER MINERAL WATERS

PURE SODA, SELTZER, POTASH, LITHIA, &c.,
LEMONADE,
GINGER ALE, AND QUININE TONIC.

Prepared and Bottled specially for Export, and warranted to keep well.

Manufactured with the utmost care and by improved machinery, these productions are recommended for purity and excellence of quality by many leading members of the Medical Profession, and have for many years had a preference by the public; the flavour of the Lemonade and Ginger Ale being procured from the fresh Fruit and Finest Jamaica Ginger, they may be relied upon as furnishing delicious and satisfactory beverages, either for general use or specially for invalids.

The Soda Water is absolutely free from any metallic impregnation, and being by improved machinery highly charged with Carbonic Acid Gas, each bottle containing a definite and unvarying proportion of Pure Carbonate of Soda. J. & B. have every confidence in inviting a trial from those who have not already patronised them.

The Seltzer, Potash, and Lithia Waters are prepared with the utmost exactitude and the purest ingredients.

The New Quinine Tonic furnishes a pleasant form for the administration of a most valuable restorative, and is refreshing and agreeable.

Ginger Ale (Aromatic) of superior quality, and strongly recommended as a Non-Alcoholic and warm stimulant beverage.

N.B.—Every Bottle is protected by a distinctive Label, with Name and Trade Mark, and each Cork is branded.

Counter Bills and Analytical Reports, with Agents' Names and Addresses, supplied when requested.

A CERTIFICATE OF MERIT, for superiority of quality, was awarded to Jewsbury & Brown at the Exhibition of Sanitary Appliances, at Owens College, Manchester, on the occasion of the Meeting of the British Medical Association, August, 1877.

A COMPILATION OF MEDICAL AWARDS, given by the British PRACTICAL TRUST AND EXAMINATION, July 4th.

JEWSBURY & BROWN, 44 Downing Street, 3 Grosvenor Street, and 113 Market Street, MANCHESTER.

TO BOTTLERS OF MINERAL WATERS AND AERATED DRINKS.

**N. G. "ECLIPSE," for
Wilcocks' 1882**

UNEQUALLED AND UNRIVALLED

TURNOVER FILLING MACHINE.

With Recent Improvements,

FOR BOTTLING

CODD'S, LAMONT'S, DISC,
BARRETT & ELERS',

And all other Patent internally-
stoppered Bottles.

£4 10s.

£4 10s.

**THIS MACHINE HAS EARNED A WORLD-WIDE REPUTATION.
ON COMPARISON WITH OTHERS IT IS PRE-EMINENT.**

It has the most simple action	Therefore is the least likely to get out of order.
It fills and syrups all internally stoppered bottles	Small or large, and of any shape.
It is worked with marvellous rapidity	The most ignorant person can work it at once.
It can be attached to any machine	English, French, American, or any other.
It has no ground-in cocks, valves, or plugs	All its parts are simply constructed.
It fills and syrups by one motion	A boy or girl can work it.
It bottles drinks highly charged with gas	With less pressure in the cylinder.
It therefore economises gas	Its rapid action economises time.
Its simplicity economises labour	Its cheapness economises cost.

We manufacture these Machines with massive castings, cast in our own foundry, which has always a high local reputation for the superior castings turned out.

Welways have a number of these Machines in course of manufacture.

Welways have one at work bottling drinks for our workpeople only.

We are always glad to show the Machines to respectable customers, in any stage and in action.

The "ECLIPSE" FILLING MACHINE is the best and cheapest in the market. It is strong in every part, and the workmanship throughout is of the highest class. It soon saves gas, and cannot waste the syrup. The syrup pump is certain in its action, and can be adjusted with the greatest nicety from zero to two ounces. It will not syrup a bottle and cannot miss once. One motion only required to throw the pump out of gear for bottling plain or n-syrup drinks.

We have had hundreds of testimonials from parties who have purchased them.

We have never had one returned which we have sent out for a fortnight's trial.

We receive continually more and more orders for these Machines.

"ECLIPSE" Filling Machine, to bolt to a Bench	... ... ... £4 10 0
Hadsome Cast-iron Standard, extra	... ... ... add. 1 0 0
Syrup Pump	... ... ... ... 3 0 0
Packed complete, as above in extra strong, extra Iron-bound Packing Case for Export	... ... ... add. 0 15 0

SOLE MAKER:

G WILCOCKS, SODA WATER MACHINIST, BACK STREET, BATH.

BOURNE WATER.

THE PUREST IN ENGLAND.

R. M. MILLS & CO.,
BOURNE, LINCOLNSHIRE,

Manufacture all kinds of Aerated Waters from this
celebrated Artesian Spring.

Dr. ANDERSON'S Tissue Phosphate Tonic Water,
an Aerated Tonic Beverage containing all the Mineral Ali-
ments of Nutrition (no Iron), and assisting Digestion in a
most marvellous degree.

SOLD BY THEIR AGENTS THROUGHOUT ENGLAND. PRICE,
WITH DESCRIPTIVE PAMPHLETS, UPON APPLICATION.

SPECIAL AGENTS IN LONDON—

Messrs. INGRAM & ROYLE, Victoria Street, and
Messrs. HARDY & Co., 42 Fenchurch Street.

GEORGE TITTENSOR,
MEDICAL LABELLER & GLASS WRITER,

10 FISHERGATE, YORK, having worked for the last 10 years at the York Glass Works, begs to state that he can supply Show Tablets and Glass Drawer Labels of the latest patterns; also Paper Labels, &c. Shops and Show Jars re-labelled in any part of the country. TERMS ON APPLICATION.

Price 5s., post free.

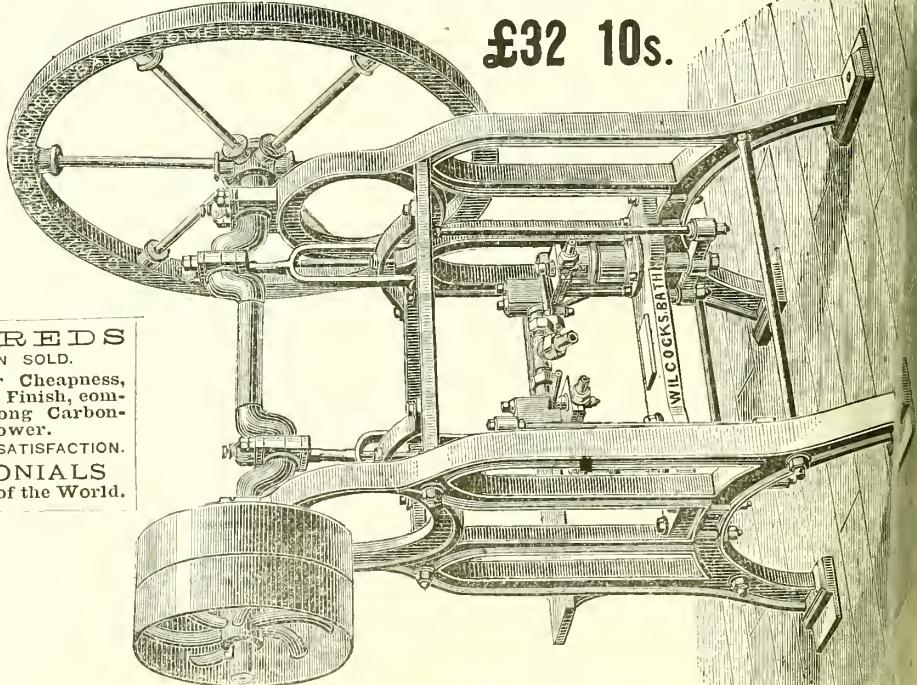
"AERATED WATERS AND HOW TO MAKE THEM."

With Receipts for Non-Exciseable Cordials, American and other Syrups,
and an Essay on the Art of Flavouring; by JOSEPH GOOLD.
An invaluable handbook for the high-class manufacturer.

J. GILBERT SMITH, Publisher, 141 Queen Victoria Street, E.C.

WILCOCKS' CELEBRATED DOUBLE SODA-WATER MACHINE

£32 10s.



2½ in. RAM PLUNGER.

N. G. WILCOCKS, SODA
MACHINIST, BACK STREET, BTH.

YORK, 1879.	Prize Medals— SYDNEY, 1879.	MELBOURNE, 1880.	ADEL-
----------------	-----------------------------------	---------------------	-------

THE

BRITISH SYPHON MANUFACTORY,
EUGSTER & KOERTGEN, Proprietors,
2 Gresham Buildings, Basinghall Street
WORKS: LAMBETH, S.E. LONDON, C.

SELTZOGENE

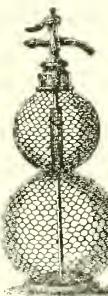
3 pint size, wire, 13s.; cane, 13s. 6d.
5 " " 18s.; " 19s.
8 " " 30s.; " —
Silverplated top or wire, 5s. extra.
Drop Cups, Measures, &c.

LIBERAL DISCOUNT FOR QUANTITIES.

IMPORTANT.

In ordering our Seltzogenes through A
distinctly state that you require the "Lio-
Shield" Brand, and see that yo
it, as often
stated. All
stamped thus:
GUARANTEED
first-class

PERFECT, an
workmanli



SYPHONS.

Short Levers, 22 6; Long Levers, 24/-
per dozen net.

WHITE, BLUE, AMBER, OR GREEN BOTTLES.
CYLINDRICAL OR OVAL SHAPED.

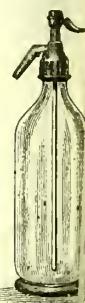
SILVERPLATED TOPS FROM 8s. PER DOZEN EXTRA.
Name stamped on metal tops free for one gross.

Name and Trade Mark engraved on the bottles by
the acid process from 1½d. to 2½d. each extra.

Soda Water Machinery.

NEW AND IMPROVED CONTINUOUS APPARATUS
With one or two Pumps.

GENERATORS, WASHING VESSELS, GASOMETERS,
SYPHON FILLING AND SYRUP DOSING MACHINES.



HUNDREDS
HAVE BEEN SOLD.

Unequalled for Cheapness,
Durability, and Finish, com-
bined with strong Carbon-
ating Power.

ALWAYS GIVES SATISFACTION.

TESTIMONIALS
From all parts of the World.

ZAMENÉ.

(REGISTERED.)

An elegant and Exceedingly Palatable Beverage, Possessing Nerve and Brain Sustaining Properties.

strongly recommended to those whose Mental and Physical Powers are overstrained by much Brain Work, Vorry, &c., as it contains in a most assimilable form the Tonic, Restorative, and Invigorating Properties of Hypophosphites, including Iron.

MEDICAL REPORTS:-

EDWARD DAVIES, Esq., F.C.S., F.I.C., &c., of the Royal Institution, Liverpool, certifies (March, 1881):—"I have analysed our new non-alcoholic beverage 'Zamené,' and find that it contains a tonic combination of phosphorus, with iron, lime, potash, and soda. The proportions are sufficient to make it a gentle tonic and stimulant, but not so large as to unfit it for ordinary and regular use. It is most agreeable in flavour, and is superior to any preparation of the kind which I have seen."

DR McNICOLL, M.R.C.S., &c., Medical Officer of Health, St. Helens, says of Zamené (after two months' trial):—"It suits my patients very well, especially the convalescent and anaemic ones. It is very agreeable, which is important, because it is desirable to keep friends with the stomach and palate. Better still, it quickens the energy of the digestive process and rouses the whole system. Your Zamené is the best of the kind before the public. I predict a great success for you."

PREPARED ONLY BY

JOHN LYON & CO.,

VICTORIA WORKS, LORD NELSON STREET, LIVERPOOL.

SOLD RETAIL BY WINE MERCHANTS, CHEMISTS, GROCERS, &c.

HAY'S

GINGER CHAMPAGNE

CAN BE OBTAINED FROM THE SOLE AGENTS,

**J. G. AM & ROYLE, 119 Queen Victoria Street, LONDON, E.C.,
AND BATH BRIDGE, BRISTOL.**

Price, in Half Champagne Bottles, 5s. 6d. per dozen.

This PARKLING, EXHILARATING, & REFRESHING DRINK, while being most agreeable in bouquet and flavour in the FINEST CHAMPAGNE WINE, at the same time, unlike it, FREE from COOL.

Same as in Free Hospital, Lower Seymour Street, Portman Square, London, W.
Dear Sir, I have tried your Ginger Champagne, which I find excellent, and I look upon it as a step in the right direction in a long-felt want. Our Senior Physician, Dr. Savory, has also tried it, and is much pleased with it. We have had such a beverage, and I believe that a drinking would thus have been prevented. I wish you success.

I am, dear Sir, yours faithfully,

GEORGE SCUDAMORE, Secretary.

52 Montague Square, London, W.

I am pleased to state that your Ginger Champagne is excellent most refreshing. It will, I trust, supersede those cheap oils & drs. that meet us at many inns and railway stations, and which often only drinks to be had. In providing this beverage you greatly assisted the cause of temperance, and I shall recommend it.

C. H. F. ROUTH, M.D.



It is strongly recommended both for Juveniles and Adults, &c., as the most Wholesome Stimulating Beverage that has hitherto been introduced, and should be in every household during all seasons of the year.

19 Oxford Terrace, Hyde Park, London, W.

I have tried Hay's Ginger Champagne and like it extremely. I consider it is infinitely superior to the numerous non-alcoholic beverages now so largely advertised. It is an invigorating and refreshing tonic beverage, and, as such, I can confidently recommend it.

W. DOMETT STONE, M.D., Phys. Finsbury Dispensary.

An excellent and most agreeable beverage.—*The Lancet.*
Made by Mr. Hay, of Hull, with his well-known SOLUBLE ESSENCE OF JAMAICA GINGER, takes rank as a PURE, WHOLESMOKE, STIMULATING, and NON-ALCOHOLIC beverage.—*British Medical Journal.*

One of the most delicate and wholesome drinks in the market.—*Medical Press.*

This is a beverage which the practitioner can safely recommend.—*Medical Times and Gazette.*

Mr. Hay, of Hull, deserves abundant success with his Ginger Champagne. It is an exhilarating, wholesome, and very agreeable beverage.—*The Chemist and Druggist.*

The Manufacturer, W. HAY, Chemist, &c., 4 Regent's Terrace, HULL.

CHEMISTS' AERATED AND MINERAL WATERS ASSOCIATION (LIMITED).

Manufacturers of MINERAL WATERS IN GENERAL, AND ALSO THE SPECIALITIES.

SPARKLING LIMINE.

A Delicious Lime Fruit Beverage, Free from a Musty Flavour.



CHAMPAGNE. THE ONLY LIME FRUIT BEVERAGE WHICH WAS NOT A MUSTY FLAVOR. CHAMPAGNE PINTS. THE CHEMISTS' AERATED & MINERAL WATERS ASSOCIATION LIMITED. 6d. QUARTS. 9d.

OF CHEMISTS, 5/6 AND 8/6 PER DOZEN.

Contains no Iron, no Phosphorus, but FRUIT AND VEGETABLE PRODUCTS ONLY.



CHAMPAGNE. COOKING PEPPER DASH. MANUFACTURED BY THE RED CINCHONA. CHAMPAGNE QUARTS. 9d.

OF CHEMISTS, 5/6 AND 8/6 PER DOZEN.

THE WATERS BEING OF FIRST QUALITY, A TRIAL IS SOLICITED.
Offices and Factories—45 Gifford Street, and 112 Pembroke Street, Caledonian Road, London; and Larrogall.

In Champagne Pints.
Bottle Cases hold 3 dozen each.
Carriage paid on Goods and
Empty Bottles.

and allowed for in FULL when
sent separately.

"A TRUE BRAIN & NERVE TONIC."

Kinmond's SPARKLING Phosphoretta,

A DELICIOUS, SPARKLING BEVERAGE FOR DAILY USE,
EXHILARATING YET NON-ALCOHOLIC.

Trade Terms and Handbills, with Retailer's name and address on free.

THE LEAMINGTON

APNEUMATIC

GINGER ALE (Aromatic).



MINERAL WATERS

ORANGE CHAMPAGNE.

GUARANTEED FREE FROM ALL IMPURITIES.

Our terms are more favourable for a family trade than those of any first-class manuf.

KINMOND & CO., late J. DAILY & CO., LEAMINGTON.

Trade List and Descriptive Pamphlet of the Apneumatic process free on application.

Hunyadi János'

ALERTION.—Circumstances which have come to the knowledge of Andreas Saxlehner, Buda Pest, Solo Proprietor of the Hunyadi János' and compel him to warn the British Public against SPURIOUS IMITATIONS. To secure genuineness, purchasers should see that every bottle has on the LABEL the name of "THE APOLLINARIS COMPANY (LIMITED), London."

and six Gold and Silver Medals, &c.: Sydney, Melbourne, Brighton, Sanitary Institute, London Food, New Zealand.

ANE CHAMPAGNE,
ARLING VINITA,
ARLING MALT WINE,
ARLING LIME JUICE,
NGR CHAMPAGNE.
Champagne Bottles and $\frac{1}{2}$ -Bottles.



SODA WATER,
SELTZER WATER,
POTASS, LEMONADE,
GINGER ALE, &c., &c.

In 10-oz. Cylinders.

Samples and Lists on application.

Caution

W. A. ROSS, the Original Patentee and Maker of
The Celebrated Belfast Ginger Ale, cautions
the public that the "GENUINE," can only be had at

Ross Royal Ginger Ale
Drated Water Works Belfast.
NAN ON CORK, CAPSULE, AND LABEL REGISTERED.

XPCT ORDERS HAVE SPECIAL ATTENTION.

NEW AND IMPORTANT DISCOVERY.

GINGER ALE FROM PURE JAMAICA GINGER.

THE ROYAL YORKSHIRE
SHIRE GINGER ALE,
from Pure Jamaican Ginger. Is Non-
Intoxicating.



ABSOLUTELY PURE.—
See Analysis by Drs. J. H. HASSALL,
M.D., and OTTO HEHNER, F.C.S.

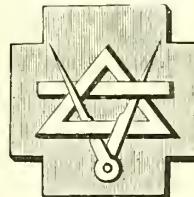
The difficulty of using Ginger in the Manufacture of "Ginger Ale," and at the same time having a CLEAR and SPARKLING DRINK, has, after much labour and expense, been thoroughly overcome by

Messrs. HARSTON & CO., of LEEDS.

VICTORIA" OFNER MINERAL BITTER-WATER.

THE BEST NATURAL APERIENT.

TRADE MARK.



safe ordinary, and gentle aperient,
flammation and congestion,
urtic and gouty disorders,
is due tendency to fat,
is hemorrhoids,
liou attacks and disorders of the liver,

During pregnancy and in many female diseases,
For habitual constipation,
In Organic Diseases resulting from fatty
degeneration,
To remove the consequences resulting from
excess in diet, &c.

Proprietors of this Natural Spring of Laxative Water are desirous of bringing the leading features before the Medical Profession. The advantages are clearly seen, that it contains a larger amount of valuable active aperient solids than any other bitter water previously in vogue with the public, as certified by the faculty, and notwithstanding its rapid action as an aperient, it produces no uneasiness in its effects. It will be seen from the analysis (below) of eminent Professional Chemists of England and the Continent, that this water contains nearly double the amount of Magnesia than other Bitter Water, hence it is entitled to be distinguished as a "SPECIFIC MAGNESIUM BITTER WATER."

		Special Analysis of			Analysis of	
Prof. H. E. ROSCOE, F.R.S., Owens College, Manchester.	Chemist of the City of Budapest.	Dr. G. L. ULEX, Official Chemist of the City of Hamburg.				
SULPHATE	32·8107	32·3800	33·60			
M. SULPHATE	17·1693	20·9540	19·55			
SU. SULPHATE	0·4407	0·3105	1·28			
UM. SULPHATE	2·3304	1·6020	1·33			
M. CLORIDE	1·7708	2·2431	2·28			
M. CARBONATE	1·1884	0·4980	2·10			
INA.	0·0108	0·0229	0·3			
CHOD. ACID	0·0587	0·0444	0·6			
TOTAL SOLUBLE	55·1798	58·0549	60·23			
ASSTNTS.	Do. FOUND	55·7250	58·156			
WEIGHT AT 17° C.	1·0534 AT 17° R.	1·05362 AT 14° R.	1·055			

Soluble Constituents and Sulphate of Magnesia in
"Victoria Bitter Water," as compared with
other Mineral Waters.

	Soluble Constituents.	Sulphate of Magnesia.
VICTORIA Bitter Water	55·77	32·87
Rákóczy	53·53	23·06
Franz Josef	52·29	24·78
Hunyady László	51·07	24·20
Hunyady János	41·73	18·44
Königsbitterquelle	37·55	16·68
Elisabeth	26·29	8·04
Püllnaer Bitterwasser	32·72	12·12
Friedrichshaller	25·29	5·15
Saidschützer	23·21	10·96

Retail Prices:—Litres, 1/- per bottle; Half-Litres, 1/- per bottle.

This water is free and contains either 25 Litre Bottles or 50 Half-litre Bottles. May be obtained of any Chemist or Patent Medicine Vendor in the United Kingdom.

VICTORIA" NATURAL BITTERWASSER OF BUDAPEST, HUNGARY.
Wholesale Depot for England and Colonies:—24 & 25 Hart Street, Bloomsbury, London, W.C.

THE MONTserrat COMPANY LIMITED,

LIME-FRUIT
JUICE.



LIME-FRUIT JUICE
CORDIALS.

ALL GUARANTEED FREE FROM ALCOHOL.

THE MONTserrat LIME-FRUIT JUIC,

In Imperial Quarts, Retail, 2/6 each, 22/- doz.; Imperial Pints, Retail, 1/4 each, 12/- doz.

(In bulk, 4/- per gall., or 12 gall. 3/6 to account. Special quotations for casks on application.)

MONTserrat LIMETTA, OR PURE LIME-FRUIT JUICE CORDIAL,

In Bottles, Retail, 1/6 each, 14/- dozen; Half Bottles, Retail, 1/- each, 9/- dozen.

AROMATIC MONTserrat,

This is made from the Montserrat Lime-Fruit Juice, combined with Aromatics.

In Bottles, Retail, 1/9 each, 17/- dozen; Half Bottles, Retail, 1/- each, 10/6 dozen.

MONTserrat CLOVE CORDIAL,

MONTserrat JARGONELLE CORDIAL,

MONTserrat PEPPERMINT CORDIAL,

MONTserrat PINE-APPLE CORDIAL

MONTserrat RASPBERRY CORDIAL.

The above are so flavoured, as indicated, as to form most agreeable and refreshing Beverages, either alone or dilute with water, and especially Aerated Waters. They can also be blended with Spirits. In Bottles, Retail, 2/- each, 20/- dozen.

MONTserrat QUININE CORDIAL.

This is a combination of pure Quinine and Montserrat Lime-Fruit Juice cordialised by the addition of Aromatics It is cheaper than Quinine Wine. In Bottles, Retail, 2/- each, 20/- dozen.

MONTserrat SARSAPARILLA CORDIAL,

Prepared with Montserrat Lime-Fruit Juice and finest Jamaica Sarsaparilla, so combined as to contain the full medicinal qualities of both. In Bottles, Retail, 2/- each, 20/- dozen.

MONTserrat LIME-FRUIT BITTERS,

Prepared so as to maintain all the well-known fragrance of the Lime Fruit, and forming a splendid Tonic Bitter.

MONTserrat LIME-FRUIT JUICE SAUCE,

Of rich flavour, freshness, and piquancy. In Bottles, Retail, 1/- each, 10/6 per doz.

As a protection against imitations, our Trade Mark (as Sole Consignees of the Montserrat Company, Limited), is on the Capsule and Label of each Bottle of Lime-Fruit Juice and its Preparations.

EVANS' LEMON JUICE,

Bottles (6 to the gallon), Retail, 1/3, 10/6 dozen.

TERMS.—Packed in cases of 3 dozen and 1 dozen each, and in quantities of 12 dozen (or half bottles), or 6 dozen quarts (or bottles). We allow 20 per cent. discount cash in 14 days, carriage paid to any Railway Station in England or Wales, or to any port in Scotland or Ireland to which direct Steamer communication from Liverpool. Smaller quantities to usual discount.

SOLE CONSIGNEES OF THE MONTserrat COMPANY—

EVANS, SONS & CO., LIVERPOOL; EVANS, LESCHER & WEBB, LONDON;

H. SUGDEN EVANS & CO., Montreal, Canada, and Rouse's Point, NEW YORK

the High Court of Justice.—Queen's Bench Division.

FARINA v. BRITTON,

Report of Trial at the Guildhall, on Thursday, March 30, 1882, before Mr. Justice Field and a Special Jury.

(Reprinted from THE CHEMIST AND DRUGGIST, April 15, 1882.)

the Queen's Bench Division of the High Court of Justice at the Guildhall, on March 30, 1882, before Mr. Justice Field and a special jury, the libel case of "Farina v. Britton" was heard.

Mr. Beard, Q.C., and Mr. Channell appeared for the plaintiff, who carries on business as a manufacturer of eau de Cologne at No. 4 Julichs Platz, Cologne, and Mr. Addy, C., and Mr. Bremer appeared for the defendant, who is the publisher of the *Daily News*.

Mr. Beard, addressing the Court, said:—You are probably aware there is amongst the manufacturers of eau de Cologne itself and elsewhere, a considerable rivalry. *eau de Cologne* was, I believe, originated as far back as 1709 by a gentleman of the name of Johann Maria Farina, who claimed to be the original inventor of this valuable perfume. Before his death the business was carried on by the Farina family without much rivalry, I believe, until the close of the last century. After that date the Farina family was, to some extent, split up, and my client descended from one of the elder branches of that family.

Mr. Justice Field: Johann Maria?

Mr. Beard: Yes, my lord: that my client is the defendant of the Johann Maria Farina there is no doubt. There is no other person, if not more, in Cologne itself who is descended from the same common stock. The family carried on and had the monopoly of this manufacture, I think, until the close of 1782, or something of that sort. After that date several of the descendants carried on an independent business in manufacturing the article. There are two great rival houses in Cologne—the house of my client, who carries on his business, as I am told, at No. 4 Julichs Platz; and a gentleman of the same name, also Johann Maria, who carries on business at Obenmarspforten Strasse, No. 23, under the trade mark "Gegeüber dem Julichs Platz." Those are the two Farinas to this day carrying on business in Cologne, and they both manufacture *eau de Cologne* of the first quality.

My client has been in business since 1855. And I may say that my client's predecessor in title exhibited in the exhibition of 1851, and obtained honourable mention there, obtained various first-class medals at various international exhibitions held since that date, and he is the purveyor of *eau de Cologne* to a very great number of European courts, amongst others to the Prince and Princess of Wales. Give you this slight sketch of my client's career in connection with the *eau de Cologne* business in order that you may understand that this is not any "mushroom" business, but the business of a gentleman manufacturing genuine *eau de Cologne*, and having a large sale throughout the world, but being in no way with a person who bears the same name as myself.

Frequent litigation, I believe, has taken place between us, resulting invariably in the success of my client, and only three years ago, before Vice-Chancellor Hall, when my client was attacked in our Courts as not being a genuine descendant of Johann Maria Farina, an attempt was made to prevent him from using the arms of his family on a certain label. That suit was decided in favour of my client, who is the plaintiff in this action.

Now, gentlemen, in April last the *Daily News* thought to write an article, which it headed "Trade Marks," but which I think you will say by your verdict looks very much like an article prompted by the rival Johann Maria Farina.

It is at Julichs Platz, because, although it purports to be an article about trade-marks, after a very few remarks about the Trade Marks Act, there is some half or three quarters of a column set up, which is the libel of which my client Johann Maria Farina, of No. 4 Julichs Platz, complains in his action. I do not think I need read the in-

troductory portion of the article; but I will read the libel of which we complain, and when you have heard it I think you will have no doubt whatever that it is a libel of a very serious character, conveying a most serious imputation upon this gentleman as a manufacturer of *eau de Cologne*, and calculated, if not intended to do so, seriously to injure his business and to puff the business of his rival. It begins in this way:—

Setting downright forgery aside, it is to be feared that the tendency of human kind to sail very close to the wind is likely to provide trade-mark litigation for some time to come. If it could be thought that the tendency to imitate other people's labels and signs sprang only from the poverty of human invention, the brilliant display on the walls of our railway stations would encourage the most determined pessimist to hope for better things. But, unhappily, there is only too much ingenuity of a kind.

Here is an insinuation of dishonesty on somebody's part:—

Probably no story can be told more humiliating to human dignity than that of *eau de Cologne* and its manufacture. No sooner had that agreeable essence acquired a reputation than the imitators went to work and displayed such skill that it is doubtful whether one woman in a hundred, of those who use it, could pass an examination in *eau de Cologne* labels and bottles. Let us look at two bottles, one of the manufacture known "in the trade" as "the genuine," and the other, which is said to be quite as good, and sold almost everywhere, but confessed by the most respectable retailers not to be genuine.

That is a most serious charge against my client—that his *eau de Cologne*, though they put in the *sop* that it may be as good as the other—is "confessed by the most respectable retailers not to be genuine." It seems to me much like saying that if there are two brands of champagne, and one is champagne and the other is made at the East-end of London out of petroleum, that the one is just as good as the other!

The "genuine" is also called "gegenüber," and the other "No. 4"; in shape and make the bottles are identical. The throat of each is garnished with a wrapper marked with three black stripes, and the body of each is nearly covered with a broad label, with a broad black stripe and a narrower line inside it; at top and bottom "Johann Maria Farina" is written in apparently the same handwriting on both labels, and both have that flourishing *parafe* which to foreign formal signatures adds somewhat the effect of our ejaculation "my act and deed." Like the "genuine," the other *eau de Cologne* [that is my client's] is *signée et parafée* "with a vengeance."

I do not know what he means by that, because, when you look at the two labels, which you will do shortly, you will see that the label on my client's *eau de Cologne* is a very mild production indeed, compared with the other:—

And to eyes less keen than those of an experienced hanker's clerk the bottles, the labels, and the flourishes are identical.

When you look at the bottles I think you will see that that is a most gross exaggeration.

But to practised vision it becomes evident, after a while, that the "genuine" label has a very narrow white border outside of the black enclosing lines, while in "No. 4" the black comes quite to the edge—that the "genuine" has an eagle in its escutcheon absent from that of its rival—that between the escutcheon and the signature are two dots outside of two dashes, also absent from "No. 4," and that on the "genuine" label three dots are inclosed in the *parafe* itself.

The word "genuine" is in inverted commas.

When all this is mastered, appears the very obvious difference of address. That of the "genuine," as it is called, commercially, is *gegenüber dem Julichs Platz* while the other bears merely *Julichs Platz* No. 4. There is also a difference in the signature. The "r" in the "genuine" Farina, not in the Maria, but only in the surname, is reversed and looks like a "z," but its rival may not use this German current "r." Yet the similarity of effect in the bottles and labels would deceive all uneducated and many highly-educated persons. No modern trade-mark tribunal would sanction anything like this, but of course the imitator could now plead "user" anywhere.

On that point I ought to say that in 1875 an Act of Parliament was passed for the registration of trade-marks. That Act came into operation, I think, on January 1, 1876, and within 11 days of that time my client registered his trade-mark, which had been in use, then, I think, for some 35 or 40 years in this business, and, of course, no objection was taken, or could be taken, to it. It is unquestionably

the trade-mark which he is entitled to use; and there is no pretence for saying that he is not, or that he is the imitator of the trade-mark which has come down to him, otherwise than properly; and the statement that "the imitator could now plead 'user'" is utterly unjustifiable.

But Johann Maria, of No. 4, is not the only claimant—

That word strikes me as being very injurious, when the gentleman is descended from the original—

is not the only claimant to the odorous honours of the Farina family. There are so many Farinas in the field that one is almost tempted to believe that the inhabitants of the Continent are not unaware of the "Barnstaple trick," as it is called in the West of England.

Mr. Justice Field: Mr. Waddy can tell us all about that.

Mr. Waddy: Do not ask us what we have suffered from!

Mr. Buszard:

The Barnstaple trick has long been used at municipal, and perhaps other elections, and consists in finding a man of the same name as the opposition candidate, and bringing him forward for election, to the confusion and bewilderment of the true Amphitryon and the bewilderment of voters.

He, you know, is the gentleman who was personated on an unfortunate occasion! Immediately after commenting on this, and calling the one genuine and the other not, we charged further with trying the "Barnstaple trick."

As the pirate whose name was Coats attempted to capture the label of that firm, so many enterprising distillers of essences have hunted round for a man named Farina, in whose name their craft might prevail.

That means to say, I presume, the name of Farina was required for the purposes of craft.

There are more Farinas than two in Köln itself, and most certainly one Antonio, who decks his bottles with gaily-coloured printed labels resembling in no kind of way the rivals of the Jülichs Platz. There is also a maker in Turin named Johann Maria Farina, whose labels are almost identical with those of the "genuine," only that the "I. M. F." becomes "J. M. F." the curl being added to the "J," and that *Zur Stad Turin Hochstr No. III.* replaces the talismanic *gegenüber dem Jülichs Platz*. But the quality of paper, the type, and the very words of the advertisement-wrapper are exactly copied, and it is printed in German and in French. Now German is hardly the language of Piedmont, where Italian, not "very choice," it is true, but Italian of a sort, nevertheless, is spoken. The Italian establishment is assumed to date from 1763, while the "genuine" dates from 1709, so that there is no question even raised as to who is the imitator who sails so very close to the wind.

Meaning by that, I suppose, that though this foreign gentleman, by putting a date, put the matter beyond doubt, No. 4 is an imitator sailing very near the wind.

The fear of Heaven is apparently not very present to the copyist of business emblems, who hopes to escape the curse laid upon him who removes his neighbour's landmark, a crime to ordinary minds very like that of imitating a trade-mark.

That is the liebel of which we complain, and we say that that liebel—

A Juror: We should like to read the liebel in the newspaper for ourselves.

Mr. Justice Field: You shall presently, but not yet, sir.

Mr. Buszard: You will have that presently. That is the liebel of which we complain, and we say that that liebel can have but one meaning—that the plaintiff is the manufacturer of eau de Cologne that is not genuine, and that it is inferior to the manufacture of the other gentleman who trades under the brand *Gegenüber dem Jülichs Platz*, and it also means, we say, that the plaintiff has fraudulently imitated the other's mark for the purpose of deceiving customers, and gaining custom for an article which he ought not to have, and which is not genuine. That is what we say this article means. It is for you to say if you can attach any other meaning to it. If it contains that meaning—and it seems to me it can have no other—why then it is a most serious liebel on this gentleman who now asks damages at your hands. What do they say in answer to this? They say it does not mean what we say. If it does not mean that, perhaps they will tell us what it does mean, but if you take it as a whole I think you will say that anyone who understands the English language cannot put any other construction on it. And then they say that the said article was published *bona fide* without malice, and was an article fairly

commenting, in a public journal, on a matter of public interest and concern, and that the publication is privileged. No doubt the subject of trade-marks is a matter of considerable public interest, and a subject which is well worthy of discussion, but I submit to my lord, and to you, that there can be no privilege for such an article as this, the effect of which is simply to puff up one manufacturer's goods and to depreciate another's.

We had no idea of bringing an action against *Daily News*. We were desirous of ascertaining who it was that had put this false and fraudulent prospectus of Johann Maria Farina's house before the world, and we asked them to tell us. Of course they were perfectly within their right in refusing to tell us; but if they do tell us to-day, and show us where the article emanates from, I think you will say, looking at the article as a whole, that it looks very much as if, if not written by, it is at any rate inspired by somebody belonging to a rival house. We point out to them the dishonest and serious nature of what they had written about us, and they so far admitted the error in that they inserted another paragraph in the paper. That paragraph I will read to you, and having read it to you, I will ask you whether it does not strike you that it is an aggravation of the original libel—that it repeats all the offensive insinuations as to our being the vendor of a non-genuine article, and makes the original libel worse than it was before. But, at any rate, it shows that by inserting it they knew they had done wrong, and they had no manliness to say, in a straightforward way, they were going to withdraw what they said, but they put in an article to go to show that they thought they must modify what they had said, though they had not the manliness to say what they ought to have done. The original article is of the type. This article is put in in a paragraph Cöln. It says:—

Some remarks in our impression of April 16 appear to have strayed into Mr. Johann Maria Farina, of No. 4 Jülichs Platz, attack upon the genuineness of his manufacture. He appears to be some misapprehension as to the tendency of our contributor. It is the similarity of two trade-marks which is commented on, not the difference of quality in the goods supplied. Our contributor observes that "in the London trade," the distinction of "genuine" upon the "gegenüber" brand, but that the "No. 4, Jülichs Platz" fetches equal prices, and is held to be equally good by our judges. When he applied the term "genuine" to one I followed "short term" in use in the trade, and by no means impugn of "No. 4." The two perfumes are used indifferently by everybody. There is no question of comparative excellence. The differences of trade mark were made the subject of complaint, without imputation on the good faith of either manufacturer.

Is it possible for anyone to read the article which I first read to you without seeing that it conveys gross imputations on the good faith of my client? My client, that he could not sit down under this imputation as *Daily News* people had thought fit to refuse the name of the person who penned or inspired which was inserted, he was compelled to bring and to ask a jury for damages. We all know that *Daily News* has a very large circulation, not only in the country, but on the continent of Europe and in the Colonies, and is difficult to estimate the damage which an article of this sort, going forth to the whole world, with the whole Mr. Farina deals, may cause him, because a traveller of the rival house now to do? What I has to do is simply this: When he is dealing with chemists in Cologne, who are selling No. 4, all he has to do is to walk into the shop and say, "What, do you sell No. 4 Cologne? Why, it is not genuine. You are selling spurious perfume. Have you read this article?"

It is very difficult to estimate exactly in money at present the result of what has happened in the agent for the No. 4 eau de Cologne will tell us, whereas the average sale for the last six years has been 7,141*l.*, in 1881—this article appearing in the sales amounted to only 5,996*l.* It is fair to say that the sales have varied during the course of those years, we all know, was a bad year for every suppose, when trade is bad people do not in luxury of eau de Cologne so much, and it is fair in that year it was about the same amount, viz., 31*l.*; b

rose again to 6,538L, and in 1881 it falls to 5,996L. The business in the United Kingdom is but a very limited one. Mr. Farina's business. In several countries of Europe, believe, he has almost a monopoly, and gegenüber de Cognac is not so well known, but in the Colonies, as his country, they are rivals. The result of this article acting for uncontradicted must be very much to enhance the value of the "opposite" house, and to damage my present's, and it is for this that he asks damages at your before this.

I shall now you, by calling before you some of the largest firms; but in this city, in reference to this article—members of the firms of Maw, Son & Thompson; Hodgkinson, Stoddard & Dent; Allcroft & Co.; Warwick Brothers, Clay Sons, and a variety of other gentlemen, that they have sold his eau de Cologne in their business for years

Judge Field: There was no justification pleaded, was there? Board: No, my lord, there is no justification whatever for the allegations made in this article, and I am out to know what is the defence set up by them.

Mr. John Maria Farina sworn. Examined by Mr. Buszard.

Are you the plaintiff in this action?—Yes.
Are you a manufacturer of eau de Cologne, carrying on business at No. 4 Julichs Platz, Cologne?—Yes.

Have you carried on that business since the year 1855?—Yes.

Was your father in the eau de Cologne business before you?

Was your grandfather before him?—Yes.

Judge Field: In the same business?

Board: In the same business?—In the eau de Cologne business.

At what was it first carried on at No. 4?—At No. 4.

Was it before your time?—Yes, before.

Board: I believe the original manufacturers of eau de Cologne were Julius and Carl Hieronymus Farina, your?

Why? I do not see how this can be evidence, or this gentleman can tell what happened a hundred years ago.

Judge Field: Well, he may be able!

Why? He may, my lord. I am not concerned with use.

Judge Field: You may take it that the article itself that the business dates from 1709.

Did it found it a business?—Yes, I found it a business.

Board: You have there various documents concerning the business for many years past, if my friend knows to them?—Yes.

Believe your house had honourable mention at the exhibition in 1851 for your eau de Cologne?—Yes.

Why? I have nothing to ask.

Board: I will call Mr. Fickus.

Judge Field: The question of damage you are at all too into. Mr. Waddy does not dispute this business or manufacture of eau de Cologne.

Why? Or that he made capital eau de Cologne, my him, as good as any in the world.

Mr. W. Fickus sworn. Examined by Mr. Channel.

You are the English agent for the plaintiff for the sale of Cologne in England?—Yes.

How many years have you managed his English business? exactly.

On the, it is admitted, large sales of this eau de Cologne. Can you tell me what has been his average sales say, 10 years?—Yes, I think from 6,000L to 7,000L.

Judge Field: The average sale has been from 6,000L to 7,000L year in England?—In England.

Is it gross receipts?—Yes, my lord.

Why? I do not know whether you think this is incidental there is shown a connection with the article.

Judge Field: I do not think it is. As far as it goes how the nature of the business, but you cannot go

further than to show the averages of the business. The jury will have to judge. They may say this article cannot apply to him, or it may be calculated to have a considerable effect on him.

Mr. Channell: Is it calculated to have an effect?—I think it is calculated to ruin us if this thing is allowed to go on.

Mr. Waddy: What thing?—Why, this libel.

Mr. Justice Field: That is your case, is it?

Mr. Buszard: I think it will be, my lord.

Mr. Waddy: There was a great deal which my friend opened which he has not gone into at all.

Mr. Justice Field: You were remarkably reticent, and I suppose Mr. Buszard hardly knew what you were going to say.

Mr. Waddy: I am waiting to hear how far my friend justifies the extraordinary suggestion that he made, that his article was communicated to the *Daily News* by the gegenüber people.

Mr. Justice Field: He cannot say that unless he sees your contributor. If he sees your contributor he can ask him the question. Perhaps he will never see him.

Mr. Waddy: Yes he will, my lord, if it is necessary.

Cross-examined by Mr. Waddy.

As you have been in this trade for some time you can tell me, is it a fact that there are catalogues published by the large perfumers in this country?—Yes.

Trade catalogues?—Yes.

Are Hovenden & Sons large dealers in perfumery.—Yes.

I am not going to say a word against the quality of your eau de Cologne, but, as a matter of fact in the trade, is it not the fact that the gegenüber has been called genuine for many years past?—I think it has been by ignorant people. They think that gegenüber is the German for genuine.

However the ignorance may have arisen, is it, or not, the fact than in the trade for many years past in this country the words "the genuine" have been applied to the gegenüber?—Very seldom.

Mr. Justice Field: I do not see how your question bears exactly, Mr. Waddy. It does not follow that because some people call a thing genuine, and another thing any thing else, it does not follow that it is a fact. I do not follow it.

Mr. Waddy: I have asked the question, my lord, because I am going to produce evidence on the subject, and am going to challenge it.

Mr. Justice Field: Let us go on.

Mr. Waddy: Will my friend give me the paper from which he is reading? Your lordship has not had the whole article before you.

Mr. Justice Field: The time will come when you will give me the whole. Let us go on in the ordinary way, and ask this gentleman the questions you have to ask him, and then hear what Mr. Buszard has to say.

Mr. Waddy: Is it the fact that the gegenüber has been known in the trade as the genuine?—Certainly not.

Re-examined by Mr. Buszard.

That is not so?—No.

Mr. Buszard: Now that my friend has asked that question, I must call some of my other witnesses.

Mr. John Thompson sworn. Examined by Mr. Buszard. You are a member of the firm of Messrs. Maw, Son & Thompson, of Aldersgate Street?—Yes.

And have had long experience in the trade?—Yes.

Mr. Justice Field: As what?—We are dealers in druggists' sundries.

In Aldersgate Street?—Yes.

Mr. Justice Field: Yes, I know, and a very large firm it is.

Mr. Buszard: Is it the fact, Mr. Thompson, that the gegenüber brand of eau de Cologne is known as the genuine?—As one of the genuine brands, but not the genuine in contradistinction to any other.

Mr. Justice Field: Not as "the genuine"?—Not as "the genuine."

Mr. Buszard: I believe you deal in both gegenüber and No. 4?—Yes, and have done for many years, about 20 years at any rate with both.

Have you seen the article that is complained of in this action?—I have.

In your opinion is that article calculated greatly to injure the sale of No. 4 eau de Cologne?

Mr. Waddy : That, I apprehend, is a question for the jury.
Mr. Justice Field : Do you object ?

Mr. Waddy : If your lordship pleases.

Mr. Justice Field : Because if you do not formally rise I take no notice of it.

Mr. Waddy : I beg your pardon, my lord.

Mr. Justice Field : I think you cannot ask it, Mr. Buszard. It is for the jury.

Cross-examined by Mr. Waddy : You know Hovenden's catalogue, of course, Mr. Thompson ?—Yes, I know it.

I do not know whether there are many rivals, but just look in that catalogue. Is that catalogue well known to the trade ?—Perfectly well known.

I see there are several Farinas there ?

Mr. Justice Field : How can you make the contents of that catalogue evidence against Mr. Farina ?

Mr. Waddy : I am going to prove—

Mr. Justice Field : What you are going to prove is another matter.

Mr. Waddy : I want to know from you, is it or is it not the fact that in the trade—not in that catalogue alone, but in the trade—there has been, rightly or wrongly, a distinction drawn between the genuine and the No. 4 ?—Would you allow me to put it in my own way, or am I to answer the question as put exactly ?

Mr. Justice Field : You had better answer the question as put, and then explain.

It is rather difficult. If you would allow me to—

Mr. Justice Field : In the trade, you are asked.

Mr. Waddy : Is it or is it not the fact that in the trade there has been a distinction drawn, rightly or wrongly, between the genuine and the No. 4 ?—In some cases, no doubt, it has been so, and is so.

Mr. Justice Field : That is not the question, "in some cases"; but it is the question of the general usage of the trade.—I cannot answer the question truthfully without I preface it in this way.

Mr. Justice Field : If Mr. Waddy will allow you to do so.

Mr. Waddy : You shall say anything that you like as far as I am concerned.

What I have to say is this : it is perfectly well known in the trade, and has been certainly for the last 20 years, that the two leading brands of eau de Cologne in this market are the opposite and No. 4.

Mr. Justice Field : The two genuine brands ?—The two genuine brands in this market are the opposite and No. 4.

Gegenüber, you mean ?—Yes, gegenüber and No. 4.

Mr. Waddy : You say for the last 20 years that has been known in the trade ?—Perfectly well.

Very well known. Now I might ask you, is it not the fact that in the language of the trade, whatever they may have known, the gegenüber has been termed the genuine, and No. 4 has been called No. 4 ?—I should say, certainly not.

What is that you have before you, Mr. Thompson ?—This is Messrs. Maws' catalogue of 1861, and I am looking to see the date when the two brands appear side by side.

Mr. Justice Field : You say, "This is my catalogue in which the two brands appear side by side."—Dated 1861.

Mr. Waddy : Is this the catalogue that is in force now ?—Not the one in force now—oh no, it is issued now quarterly.

I do not quite understand what this represents to your mind ?

Mr. Justice Field : That so far back as 1861 they are placed side by side as this catalogue shows.

Mr. Waddy : Before that time was a distinction drawn between them ?

Not to my knowledge. I only go back as far as my personal knowledge goes. I have always heard them both called genuine.

As far as I see, you deal in two kinds of eau de Cologne ?—Exactly.

And two only. Those are what I may call the opposite and No. 4 ?—Yes; we did that only for a certain time. Since then we have dealt in other brands.

Your production of that book is not to mark an epoch in the trade, but as far back as you recollect ?—As far as I can speak positively.

Mr. Justice Field : Not as far back as he recollects, but as far back as the classification in his catalogue shows it. He

has always heard them both called genuine.—Long before this I know the brand No. 4 was perfectly well known in the trade.

And sold by leading houses ?—Leading houses ; by first-class druggists before that.

Your business is very large, is it not ?—Yes; doing almost all the leading chemists in the United Kingdom.

Re-examined by Mr. Buszard.

As I understand, that trade list is the earliest I can find ?—I believe it is the first in which the eau de Cologne is put.

Mr. Justice Field : I have some difficulty about your Mr. Waddy ; we will not discuss it ; but it seems to be bordering very much on justification. We will see and by, after we have taken the evidence.

Mr. Waddy : I hope your lordship will not think & I hope I shall be able to draw a distinction. I shall endeavour to do so.

Mr. Justice Field : Evidence of facts may be ten to show the reverse. I do not say it is so, but it is, as my "sailing near the wind."

Mr. Robert B. Warrick sworn. Examined by Mr. Channell.

You are a member of the firm of Warrick Brothers of Swan Lane ?—Yes.

And are large dealers in perfumes with the rest of France ?—Yes.

Mr. Justice Field : Are you large perfumers & wholesale perfumers for many years.

Mr. Channell : Are you acquainted both with gegenüber eau de Cologne and with No. 4 ?—Yes ; for myself I believe you have a price list also—an old one ?

Mr. Justice Field : The question is, what is known in trade, not this gentleman's practice.

Mr. Channell : But I believe he goes to a much earlier date than the last witness.

I have not one prior to 1851 in which eau de Cologne mentioned by name.

Mr. Justice Field : The only question admitted at is, whether one was known in the trade as "the genuine" as distinguished from the other ?

Mr. Channell : I only want to see the extent of gentleman's experience. You heard the question. That you say as between these two eau de Colognes, to one being known as the genuine as distinguished from the other ?—My firm imported—

Mr. Justice Field : We do not want to know you action but speaking of the trade generally.

Mr. Channell : According to your experience it is the fact that one of these eau de Colognes, the remainder is known as "the genuine" in contradistinction to the other eau de Colognes ?—Oh, no.

Mr. Justice Field : To No. 4 ?—No.

Keep to No. 4. It is not the fact that in the trade gegenüber is known as the genuine as distinguished from the other. How many years back are you able to speak to ?—I am able to speak as far back as the year 1846.

Cross-examined by Mr. Waddy.

Have you ever heard the word "genuine" applied to eau de Colognes at all ?—There are many genuine Colognes.

That is not what I ask you.

Mr. Justice Field : Answer the question. I have heard it applied to many eau de Colognes. I have come across 13 or 14 men in the trade who call themselves genuine.

Mr. Justice Field : What is the usage ?—I have known any usage of calling one brand genuine more than another of these two brands.

Mr. Waddy : That is not quite an answer to me. Mr. Warrick, please. What I ask you is this. I have ever heard the name "the genuine" applied in the trade to any eau de Cologne ?—I cannot answer the question in any other way than this. We frequently have orders to our house for genuine eau de Cologne, and we would look to our book to see whether it referred to gegenüber or No. 4.

Mr. Justice Field : "If a customer applied for eau de Cologne, we should refer to our book." The two would answer the description ?—Yes.

If you sent me No. 4, and I brought an action against you or damages, you would say "that is quite as genuine as the genuine?"—Quite.

Mr. Hodgkinson, of the firm of Hodgkinson, Stead & Co., of Upper Whitecross Street, wholesale and import druggists, was examined by Mr. Buszard.

I believe that your firm have very large dealings with de Cogne and other articles?—We sell a great deal.

Is there any usage known in the trade by which genuine eau de Cologne is called the "genuine" and the other No. 4?—No.

Mr. Waddy: I do not ask you anything.

Mr. Buszard: That will be my case.

Mr. Buszard then handed in the copy of the *Daily News* containing the alleged libel, the certificate of the registration of the trade-mark, and a copy of the correspondence which he passed between the solicitors for Mr. Farina (Messrs. Thompson, Son & Brooks) and the manager of the *Daily News*. The explanatory paragraph inserted in the *Daily News* on May 31 was not considered satisfactory by Mr. Farina's solicitors. They said "such paragraph is not satisfactory: it repeats the objectionable imputation and gravates the original libel. Our client requires the name and address of the contributor of the article in question, which was evidently inserted by a rival house, with a view to have the effect of seriously injuring his business." The manager of the *Daily News* declined to give the name of the contributor, and contradicted the insinuation that the article had been inserted at the instigation of any rival house, but offered to give his best attention to any further paragraph which might be suggested on behalf of Mr. Farina. The solicitors then, with much reluctance, announced that they were instructed to commence proceedings against the *Daily News*.

After reading the correspondence, the Court adjourned for a short time.

In re-embarking,

Mr. Waddy, addressing the Judge, said: My lord, my task would have been easier if it had not been for something which my learned friend said, and which I misunderstood probably, but which others also in Court, I believe, misinterpreted to intimate something with regard to the *Daily News*—whilst, I am sure, my learned friend would be the first to let him repudiate; and that was, that it was done by a newspaper in the position of the *Daily News* as actuated by a rival house.

here are expressions in this article which, from the very first, I am my friend, and those who instruct me, felt it was clearly impossible to justify, and there has never been an attempt to justify them; but, before I proceed to say that I hope will be quite satisfactory to my learned friend, your lordship will consider I am entitled to say in this exactly how this happened.

My lord there was a gentleman, who would have been in the box if necessary, who was an old contributor of *Daily News*. This is not a leading article, but one of the separate articles which my learned friend has seen, it occurred to this gentleman that he would write an article on trade-marks, and so he did; but my learned friend—*my*—I am finding no fault with him—read that part referring to his part of the case alone; but, in fact, that part of the article begins down there [pointing]; the whole of the earlier part is in regard to her articles not half so pleasant—I do not know, he-by being about beer—it is difficult to settle, perhaps, which is the pleasanter!

Mr. Justice Field: And "Barnstaple"?

Mr. Waddy: No, Barnstaple is part of my learned friend's—*the*—which comes lower on, the savoury part of the case. What happened was this: being an article in the handwriting of an old contributor, and so recognised, this article, which in its form should not have been inserted, was put into the ordinary vigilance eyes of the editor, and inserted when it should not have been. That is the whole of the matter. The fact is, the gentleman who wrote it need not blurt out his name here, for my friend knows—I believe, he gave information to this effect, which

I am not going to set up, mind, that although the two kinds are very much alike, and you might mix them, I believe, and not find out the difference; yet, at the same time, there is one known in the trade as "genuine," and one known as "No. 4." That is the point of the article; whether well or ill expressed, I do not pretend to say, and if you look at it you will see that "genuine" is in inverted commas. That I do not seek to maintain, because, although I had a body of evidence to show it was so, I must show that it was so in the trade, and after the evidence given by Mr. Thompson and Mr. Warrick, and others of experience, it would require more courage than I possess, and I could not ask the jury to say so.

I give now, on behalf of the *Daily News*, that which from the first were prepared to do, if we had not thought that there was a suggestion that the *Daily News* was lending itself to that which it has been hinted it was. I am authorised to say that while they consent to a verdict for an amount which your lordship will easily guess, with the costs which will follow, we regret, and are sorry that the article should have appeared at all. Sufficient attention, we say, was not given to the statement in the article, which is explained by the fact that this appears to be given by, and to have proceeded from, an old contributor, and that is the explanation of the whole circumstances—that there was a misunderstanding between the officers on the *Daily News*, and for it, and for the appearance of this article we express our regret. I think that is all my learned friend can wish.

My learned friend wishes me to say something about the trade-mark. With regard to the trade-mark, that may be or may not be similar; that is a matter for anybody to judge who looks at the bottles with his own eyes, and it is not for me, or for the *Daily News* to express an opinion about it, but it is sufficient for me to say that I desire at once to withdraw any notion that it is a fraudulent imitation of one trade-mark by the other. If I must express an opinion, I should say that it is very likely these two came down from a common source, but on that I express no opinion, and we desire to withdraw any notion that there was an intention to pirate any mark at all.

Mr. Buszard: After the handsome apology which my friend Mr. Waddy has made, on behalf of Mr. Farina I wish to say that he has not brought this action in any way in a vindictive spirit. He was very desirous not to sue the *Daily News* if it could be avoided, and he has not brought an action to make any profit out of it. All he requires he has now obtained, namely, a verdict which has cleared him from the imputation which this article seemed to convey, that he was not selling a genuine article, and I certainly did not intend to say, nor did I say, in opening the case that the *Daily News* had willingly lent itself to an opposite house. I shall be in the recollection of your lordship and the jury—what I intended to say was, that what had slipped into this article might be used by a rival house, and it was in consequence of the high character of the *Daily News* that Mr. Farina thought it necessary to bring this action.

Mr. Justice Field: I think the plaintiff was justified, and not only justified, but as an honest man of business was bound to bring the action. I must say in the whole course of my life I never heard a more frank and clear statement made than that which has been made by Mr. Waddy. He has explained how it has happened, and accidents will happen. The handsome withdrawal made is just what I should expect from the publisher of such a paper as the *Daily News*.

Mr. Buszard: Your lordship will give judgment and certify for a special jury?

Mr. Justice Field: Certainly.

Mr. Waddy: Perhaps I might say that whatever damage has been sustained from the article in the first instance may, I hope, be more than reconquered them by what my friend has said, and what I have said too.

Mr. Justice Field: No doubt they will make you a handsome present. I should like to see the bottles.

Mr. Waddy: I was going to say I do not think you would be entirely master of the case unless I sent your lordship np both bottles to keep. I could not do it before, but I may do it now.

The bottles were handed to his lordship.

Notice to the Trade

GENUINE EAU DE COLOGNE

MANUFACTURED BY

JOHANN MARIA FARINA
JULICH'S PLATZ No. 4,

A DESCENDANT FROM THE

Original Manufacturer of this Valuable Perfumery

IS KNOWN THROUGHOUT THE WORLD AS

No. 4,

AND SOLD BY ALL THE LEADING WHOLESALE HOUSES

In 2 oz. Bottles.

In reputed $\frac{1}{2}$ -Pint, Wickeed.

In 4 oz. Bottles.

In reputed Pint, Wickerd.

In 6 oz. Bottles.

In reputed Quart, Wickeed.

In 8 oz. Bottles.

In 4 oz. Bottles, Wickerd.

And also in Pocket Flasks.

JOHANN MARIA FARINA
JULICH'S PLATZ No. 4,
COLOGNE - ON - THE - RHINE

By Special Appointment to the Prince of Wales and to several Imperial and Royal Courts

Possessor of the PRIZE MEDALS of the Exhibitions at LONDON, 1851; NEW YORK, 1853; LONDON 1862, OPORTO, 1865; CORDOVA. (Argentine Republic), 1871; and at VIENNA, 1873; SANTIAGO (C. 1874); PHILADELPHIA, 1876; CAPE TOWN (South Africa), 1877 (the only Gold Medal); and SYDNEY, 1878.

Sole WHOLESALE Agents for the United Kingdom and Colonies,

FICKUS, COURtenay & CO

ST. DUNSTAN'S BUILDINGS, GREAT TOWER STREET, LONDON.

CAUTION.

BUSH & CO. regret having to caution the trade spurious imitations of this article, most of which being mere rubbish.

UM EXTRACT

(French Cream).

PROTECTED BY ROYAL LETTERS PATENT.

Producing a Permanent Head of Creamy Richness on Beer, Ginger Ale, Lemonade, and other Aerated Beverages; also on Beers, Ciders, Wines, &c.

2s. 6d. per lb.

ERS AND VENDORS OF EFFERVESCENT RIXS, AND TO THE PUBLIC GENERALLY.

High Court of Justice—Chancery Division—on Thursday, 10, 1880, before Vice-Chancellor Sir C. Hall, an application in the action of Bush v. Young to commit the defendant for disobeying an injunction whereby he had been restrained from imparting, or publishing a recipe, which is an infringement of certain patent known as "Gum Extract," the property of which is used in the mineral water trade for giving a head or foam to ginger beer and other beverages; the defendant published and sold a recipe for the preparation of a compound under the name of "Compound Fluid of Saphaca" to be used for the same purpose. The defendant resisted on the ground that the bark used by him was not the same as that of the plaintiff, being known as "Panama Bark." The plaintiff, however, proved that this was in fact the same, and granted the injunction. The defendant also threatened to publish a recipe unless it were bought up by the plaintiff. A judgment was made that in default of defendant paying costs should stand committed to prison.

Infringing the above patent, either by selling or using, or proceeding against, and those who give information of infringement will be liberally rewarded.

W. J. BUSH & CO.,

Distillers and Importers of

Essential Oils & Fruit Essences,

SPECIALITIES FOR AERATED WATER AND CORDIAL MANUFACTURERS,

ESSENCE LEMON,

EXTRA SUPER QUALITY,

The ONLY PURE ESSENCE imported, made at our Works at Sicily.

ESSENCE GINGER ALE,

For Winter Drinks.

TONIC ESSENCE,
FOR BITTER WATER.**Soluble Essence Lemon.****SOLUBLE ESSENCE GINGER.****SOLUBLE ESSENCE OF PEPPERMINT.****BEWARE OF SPURIOUS IMITATIONS.**

W.J.B. & Co. caution the Trade against the so-called Soluble Essences now so frequently offered for sale, which are nothing more than mere Tinctures; and although offered at lower prices, cost 5 or 6 times as much in use, whilst imparting a strong medicated flavour.

NONE OTHERS ARE GENUINE.**FRUIT COMPOUNDS,**

Wickmin, Orange, Raspberry, Strawberry,

Wick Pear, Pine Apple, and Ginger,

FOR THE MANUFACTURE OF

FRUIT CHAMPAGNES,

PATENTED BY

MESSRS. BARNETT & FOSTER,

SON STREET, HOXTON, LONDON,

And Manufactured solely for the Patentees by

W. J. BUSH & CO.,

23 ARTILLERY LANE, BISHOPSGATE, LONDON.

Packed in 1, 2, and 5 lb. bottles.

10s. 6d. per lb. net, including bottle.

Particulars as regards cost of licence, machinery, &c., for the manufacture of above, may be had on application to Messrs. Barnett & Foster, or

J. BUSH & CO., 20-23 Artillery Lane, Bishopsgate, London, E.



LESLIE & SON

PORT ELIZABETH.

THE MOST PERFECT NON-ALCOHOLIC BEVERAGE

TRADE

Vin-Sante

SWEET AND DRY.

CONTAINS HYPOPHOSPHITES OF IRON, LIME, SODA, AND POTASH.

In Champagne Quarts, retail, 10/- doz.; Pints, retail, 6/- doz.; Half-pints, retail, 4/- doz.

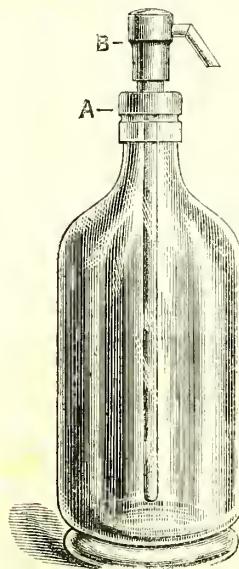
MANUFACTURED BY THE VIN-SANTE AND NON-ALCOHOLIC BEVERAGE CO., LIMITED, LIVERPOOL.

For Wholesale Terms, see Price Lists of the undenamed SOLE WHOLESALE AGENTS,

EVANS, SONS & CO., 56 HANOVER STREET, LIVERPOOL.

H. SUGDEN EVANS & CO., Montreal, Canada,
and Rouse's Point, New York.

EVANS, LESCHER & WEBB, London.
CROSSE & BLACKWELL, London.



WEST'S PATENT PARAGON —SIPHONS—

14/6 per doz. and Nickel Platd!!

"A marvel among Siphons."—Vide Press Notices.

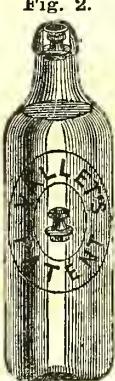
Send for Descriptive Circular to

H. J. WEST & CO.,

Stamford Works—116, 118 Southwark Bridge Road,
LONDON, S.E.

VALLET'S PATENT IMPROVED STOPPED BOTTLES,

Fig. 2. For Mineral Waters and Gaseous Liquids,
Are now used by upwards of 900 Soda Water Manufacturers
in the United Kingdom.



PRICES (Per Gross).—Patent Stopper, as per Fig. 1, 4/-; ditto, as per Fig. 3, 4/-; Patent Stopped Bottles, ready for use; ditto Half Bottles; ditto Patent Unstopped Bottles; ditto Half Bottles; Fig. 4 Boxwood Bottle Openers, polished, 8/-; ditto, fitted with rubbers, 10/-; Common Wood Bottle Openers, 5/-; ditto, fitted with rubbers, 7/-; Fig. 10, New Bottle Opener, 6/-.

ROYALTY FREE.

Fig. 1.

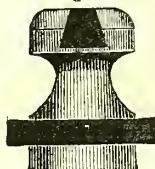


Fig. 3.



Fig. 1 Stoppers, when invoiced separately, are ready fitted washer on, and are easily inserted into the Bottle by the simple thumb; the washer at the same time folding in the hollow which passes into the Bottle. It is the only Stopper which fits the Bottle with; and when a Bottle breaks, which seldom occurs, it is always fitted with this washer, ready to be inserted in a new one; it is the most durable and inexpensive Stopper in the trade.

ADAM FAGES.—These Stoppers cannot break the Bottles surface of indiarubber ever exposed to the liquid of any Sort. Stoppers are inserted without trouble. No extra cost for Bottles are cheap, very durable, and particularly clean. The filling is patent, and quick in action. Any Filling Machine, however, Patenteer guarantees the Stoppers perfect gasholders, there is no leakage or waste. There are no leakages or waste in the Stoppers, as may occur in the Stoppers of other makers.

NOTICE TO THE TRADE.

It having come to my knowledge that certain parties have great and acknowledged superiority of my Patent Stopper, have so as to constitute a clear case of infringement upon me to be known that I intend to take such steps against the said party, should this notice not be effectual.

Sample and Particulars sent on application.

L. VALLET, 49 EVERTON RD., LIVERPOOL.

INDEX TO ADVERTISEMENTS,

See Pages 21, 22.

HONOURABLE MENTION,

International Food Exhibition, Agricultural Hall, London, October, 1880.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER

(Guaranteed Pure and Free from Capsicum).

Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.

Highly adapted for the manufacture of Transparent Aerated Waters, and for all Dietetic, Medicinal, and Pharmaceutical purposes.

Medical Opinions on

HAY'S Soluble Essence of Ginger.

"Singularly free from resin."—*The Lancet*."It should entirely supersede the official preparation in the British Pharmacopœia."—*Medical Press*.

Medical Opinions on

HAY'S Ginger Champagne.

"An excellent and most agreeable beverage."—*The Lancet*."Made by Mr. HAY, of Hull, with his well-known Soluble Essence of Jamaica Ginger, takes rank as a pure, wholesome, complete, and non-alcoholic beverage."—*British Medical Journal*.Medical and other Opinions on the
Ginger Beer made from HAY'S Soluble Essence."An excellent effervescent drink."—*The Lancet*."Preferable to some wines we have tasted under the name of champagne."—*Medical Press*."Clear and transparent, and very pleasing to the palate."—*Medical Times and Gazette*."Has the purest Jamaica Ginger aroma, distinguishable as soon as poured out. It is a beverage fit for any gentleman's table, and ought to attain great popularity."—*The Chemist and Druggist*.**THE COMPOUND ESSENCE**

(Guaranteed Pure and Free from Capsicum).

is Essence, which is an addition of VANILLA, LEMON, and OTHER FLAVOURS to the above, is strongly recommended for the manufacture of Ginger Beer, WINES, &c., to which it imparts with the Ginger a Peculiarly Fine Fruity Flavour and Aroma.

Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s.**THE COMPOUND FORTIFIED ESSENCE**

Specially adapted for the Manufacture of the FINEST

GINGER ALE.

Essence is strongly recommended for the manufacture of the finest Ginger Ale and Ginger Beer. It imparts, with the unique Aroma of the first-mentioned Essence, a peculiarly fine fruity flavour combined with the fullest amount of fragrance and pungency.

Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s.**HAY'S GINGER ALE ESSENCE,****HIGHLY CONCENTRATED.**

Essence is a complete Bouquet of the finest Ginger, Lemon, and other flavours, in a highly concentrated state. Ginger Beer and Ginger Ale made with this Essence will possess an amount of Aroma, Flavour, and Quality that have hitherto been without precedent and that will be sure to command a large sale.

THE COST IN MANUFACTURE IS ABOUT ONE FARTHING PER DOZEN BOTTLES.

Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d.**GINGER ALE EXTRACT**

SUPPLIES PUNGENCY, AROMA, COLOURING, AND FLAVOURING.

Extract is strongly recommended for the manufacture of Ginger Ale, to which it imparts an unusually Fine Flavour and Great Brilliance, at a cost of a little under 1d. per dozen bottles.

Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s.

PREPARED BY

HAY, Manufacturing Chemist, 4 REGENT'S TERRACE, HULL.Agents—Messrs. HEARON, SQUIRE & FRANCIS, Wholesale Druggists,
5 COLEMAN STREET, LONDON, E.C.

HAY CAUTIONS THE TRADE against the use of those spurious so-called SOLUBLE ESSENCES which, besides having NO GINGER AROMA, are FLAVOURLESS, RANK, and DISAGREEABLE, and are little more than TINCTURES OF CAPSICUM.

Transparent and True Flavoured Beverages are obtained by usig

TRADE MARK.
EDWIN BING,
CHEMIST,
CANTERBURY.
REGISTERED.

BING'S

TRADE MARK.
EDWIN BING,
CHEMIST,
CANTERBURY.
REGISTERED.

SOLUBLE ESSENCE of JAMAICA GINGER,

Of superior quality and guaranteed purity. Trade price, 4s. 6d. per lb., net cash.

Bing's Soluble Compound Essence of Jamaica Ginger,

Of extra strength and warmth. Trade price, 4s. 6d. per lb., net cash.

BING'S GINGER ALE ESSENCE.

This ESSENCE is considered by all who have used it to be the best and the cheapest in the market, costing a little over a farthing per dozen bottles. Trade price, 5s. 6d. per lb., net cash.

Bing's Soluble Essence of Messina Lemons,

Of superior flavour to the essential oil, for imparting to Lemonade and other Drinks the true flavour of Fresh Lemon. Trade price, 4s. 6d. per lb., net cash.

PREPARED BY

EDWIN BING, Pharmaceutical Chemist.
CANTERBURY.

London Agents—Messrs. EDWARDS & SON, 157 Queen Victoria Street.

EVANS' SALINE,

EFFERVESCENT.

SALINE (EVANS'), EFFERVESCENT.—This preparation is a mixture, in definite proportions, of Howard's Chlorate of Potash, English Tartaric Acid, Bicarbonate of Soda, and a little Cane Sugar. The proportions of these ingredients are fixed, and always remain the same.

The peculiarity of this Saline is that the Chlorate of Potash, in the proportion of about 2 per cent. (really 1·9), is in a state of minute subdivision, with, at the same time, a slight excess of Tartaric Acid. The latter gives a pleasant sharpness to the effervescent draught, whilst the former seems to have almost a "specific" effect in bilious headache and a feverish system. Now, these two properties (the quantity of chlorate and an excess of acid) are difficult to

obtain together, on account of a tendency to decompose, and a simple mixture of acid and soda forms a pleasant draught, but lacks the peculiar value of Chlorate of Potash in headache and fever. In Evans' Saline these difficulties have been overcome, and a stable, reliable preparation is obtained with the above percentage of Chlorate of Potash in minute subdivision. It is a dry, fine powder, rapidly dissolving in water, with effervescence and a clear solution. These are the physical characters.

The peculiar commercial feature is that Labels are printed with the full name and address of the chemist, with wording that he may suggest. To lessen expense, the bulk packages (tins of 14 lbs. and 28 lbs.) are re-

PRICE.

1/6 per lb., 14 lbs. 1/5 (tin free). 112 lbs. (in tins, free), on contract, delivery as required during the summer.

Labels.—Plain, 1/- per 100; with Name and Address of Chemist in full, 100, 4/-; 250, 5/-; 500, 7/6.

(TO ACCOUNT.) Bottles (empty, stopped).—Medium, 1/6 per doz.; large, 2/6 per doz.

EVANS, LESCHER & WEBB,

60 BARTHOLOMEW CLOSE, LONDON.

EVANS, SONS & CO

56 HANOVER STREET, LIVERPOOL.

MONTREAL AND PARIS.

N. G. WILCOCKS'
"MUSHROOM BULBOUS"
UNIQUE
CORKING & FILLING MACHINE
 FOR
CHAMPAGNE BOTTLES.

MME SE STRENGTH, SUPERIOR WORK-
 MANSIP AND FINISH.

PERFECT CORKING in the CHAMPAGNE
 STYLE of the CONTINENT.

£10 : 10 : 0

N. G. WILCOCKS,
 MANUFACTURER,
BATH.

INGLEY'S | **SODA WATER.**
SELTZER.
POTASH.
LEMONADE.
LITHIA, &c.



MANUFACTURED BY

JEN INGLEY, Pharmaceutical Chemist,
NORTHAMPTON.

Copy of professor Attfield's Report will be forwarded by post on application.

'ABSOLUTELY PURE.'
 SE ANALYSIS. Sent post free on application.

ELLISS'S



RUTHIN

Soda, Potass,
 Seltzer, Lemon-
 ade, also Water
 without Alkali.
 For GOUT,
 Lithia Water, &
 Lithia &
 Potass Water.

REGISTERED.

RKS GRANTED "R. ELLIS & SON, RUTHIN," and every
 label bears their Trade Mark. Sold everywhere, and wholesale of
ELLI & SON, RUTHIN, NORTH WALES.
 London Agents: W. BEST & SONS, Henrietta St., Cavendish Square.

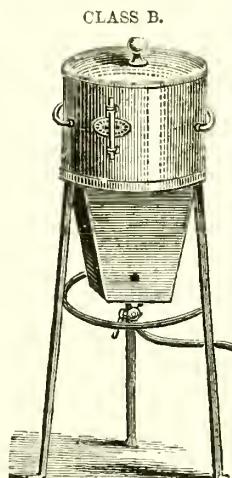
WATERS.



MAIGNEN'S PATENT
FILTRE RAPIDE.

For the clarification of all liquids, hot or cold,
 in large or small quantities.

BIJOU CLASS.

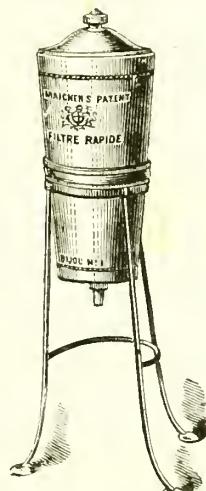


Class B.
 Tinned,
 Copper.
 Price from
 50/-.

Bijou A & C
 Class.

All Earthen-
 ware,
 from 12/6.

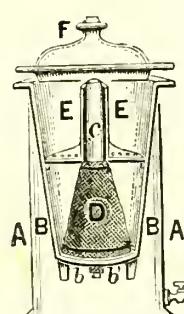
Class E.
 Earthenware
 and Wood,
 from 30/-.



These Filters do well and quickly what jelly bags and
 funnel filters do badly and slowly.

From THE CHEMIST AND DRUGGIST, March 15, 1882:—"The two chief objections to funnel-filtering are that the liquid finds its exit practically at the apex of the cone only, and that the filter is always liable to break. In Maignen's 'Filtre Rapide' these difficulties are perfectly provided against, and great speed is attained along with perfect filtration."

MAIGNEN'S PATENT "FILTRE RAPIDE"
FOR WATER.



Section of "Cottage" and Bijou D" Filtre Rapide for Water.

These WATER Filters are entirely different from all other filters hitherto brought before the public.

They render the water filtered absolutely pure, and they can be easily and thoroughly cleansed by the users themselves.

They have been awarded the only medal ever given by the Sanitary Institute of Great Britain for filters, and have had the highest award at every exhibition at which they have been shown.



"BIJOU D."
 For Water.

Full Prices and Particulars from the Patentee,

P. A. MAIGNEN,
 22 & 23 Great Tower Street,
 LONDON.

RAYNER'S ORIGINAL LIME FRUIT SYRUP

THIS is now recognised as the best Lime Juice preparation in the market. It is a delicious Syrup, most cooling and refining in its character, perfectly divested of the musty flavour so objectionable in these preparations generally. For Home or Export Trade it is equally well adapted, as it keeps for any length of time, always gives satisfaction, and commands a large sale wherever it is introduced.

It is an excellent adjunct to spirits in mixing, imparting a most grateful and improved flavour.

On account of its entire freedom from alcohol it is extensively used in Temperance Hotels, and by the advocates of temperance throughout the kingdom.

Mineral Water Manufacturers will find it well suited for making Lime Juice Champagne.

Extract from "THE LANCET." May 8th, 1880.

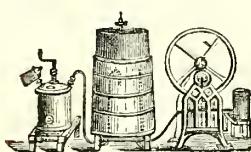
"This is 'a real Luxury.' The genuine Lime flavour cannot be mistaken. Perfectly bright, it forms an excellent summer drink, either plain or aerated waters. It is needless to say that such a drink is very wholesome. It is highly popular with children, for whom, as well as for all, it is very well suited."

In Champagne Quarts... 12/- per dozen.
 In do. Pints 8/- per dozen.
 Also in Bulk. Wholesale quantities, 4/6 per gallon.

SPECIAL TERMS TO SHIPPERS AND LARGE BUYERS.
SOLE MANUFACTURERS AND PROPRIETORS—

RAYNER & CO., FARRINGDON ROAD, LONDON, E.C.
Energetic Agents Wanted Everywhere.

SODA WATER MACHINERY BY **BARNETT & FOSTER,** 23rd FORSTON STREET, SHEPHERDESS WALK, LONDON N.



Prize Medals—London, 1862, 1873, 1874; Paris, 1867, 1878; Vienna, Philadelphia, Cape, &c. Highest Award, Sydney, 1879-80.



All our Machines have a Gasometer, and it forms a most important necessity where purity of product is required, as it ^{the gas} is expanded and purified; it also removes the possibility of explosion, and avoids the necessity of complication—these we ^{sider of} greater importance than the saving of a few inches of floor space.

Our valuable Book of Recipes and Instructions accompanies every Machine, and the most unskilled can at once, duce Waters of the highest class.

Sole Agents for Godd's Patent Bottle, Fig. 1. Sole Manufacturer of the "London-made" Syphon Fig. 2.

PATENTEES OF THE IMPROVED CORKING MACHINE FOR CHAMPAGNE BOTTLES.
ILLUSTRATED CATALOGUE FORWARDED FREE.

REMEMBER THIS!
WRIGHT'S GINGER BEER POWDER
IS A POWDER.

Is acknowledged to be the best and cheapest in the Market, gives universal satisfaction, allows a fair profit to the Retailer, will keep in good condition, and in any climate. A Threepenny Box is sufficient for 3 Gallons of Ginger Beer, and is sold only in 3d. Boxes. Price, 24s. per gross.

Sole Maker—J. W. WRIGHT, Chemist, BURNLEY.
WHOLESALE AGENTS—Hovenden; Evans, Lescher; Burgoyne, Burbidge & Co., London. Evans, Sons & Co.; Jackson Liverpool.

PHOSPHODONE

NON-ALCOHOLIC.

"A carefully-prepared beverage. . . . Pure, wholesome, and exhilarating. . . . The mineral water held in solution is chiefly in the form of hypophosphites, of which each bottle contains about one grain."—*Extract from Analysis.*

PHOSPHODONE.

"Is undoubtedly one of the most desirable beverages introduced. The water, which forms the primary constituent, is exceptionally pure, and the scientific analysis is entirely satisfactory. The increasing popularity of Phosphodone testifies to the merits of this refreshing and invigorating drink, which has already developed into a widespread reputation in the Colonies and foreign parts."—*British Trade Journal.*

PHOSPHODONE.

"A much-prized preparation among consumers of non-alcoholic drinks. All Mr. Skinner's goods may be catalogued as refreshing, wholesome, and palatable . . . above the ordinary run of aerated waters."—*European Mail.*

PHOSPHODONE.

"Samples are seen of the materials employed . . . and the examination of these substances assists one in forming a high opinion of the articles produced, and of the certainty that purity and wholesomeness are fully maintained in every department of the manufacture."—*Sanitary Engineer.*

PHOSPHODONE.

The Medical Profession and other correspondents may be furnished with the Alkaline Strength of the Mineral Waters, and other important information, as well as detailed Analyses, Medical Commendation, Press Notices, Testimonials, and Scientific Authorities. See Analyses by Professors Wanklyn, Heisch, &c.

WHOLESALE AGENTS—

CLAY SONS, 95 Farringdon Street.
WADSWORTH & SONS, 22 Henrietta Street.
WARD'S SONS, 157 Queen Victoria St.
G. & C. CO., Exeter.

HOVENDEN & SONS,
INGRAM & ROYLE, 119 Queen Victoria St.
" " Bath Bridge, Bristol.
LYNCH & Co., Aldersgate Street.

NEWBERY & SONS, King Edward Street.
SANGER & SONS, 150 Oxford Street.
SUTTON & Co., Bow Churchyard.
W. TULLOCK & SONS, Bury Street.

etaed at 5/6 per dozen, Champagne Pints (bottles included).

Chemists may obtain advantageous terms from the Wholesale Agents.

RORIETOR: G. H. SKINNER, ST. KERRIAN WORKS, EXETER.

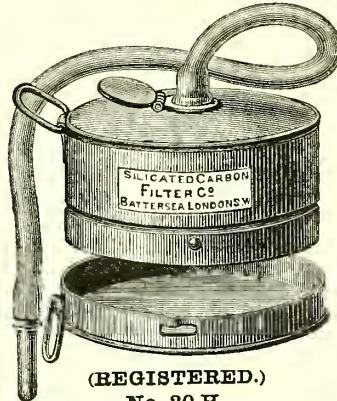
RIZE MEDAL awarded, International Food Exhibition, 1881; and Highest Award of Merit, Sanitary Institute of Great Britain, 1880; for Skinners' Aerated Waters.

NOVELTY. SILICATED CARBON POCKET FILTER

IN GERMAN SILVER, NICKEL-PLATED.

Retailed at FIVE SHILLINGS each.

Designed by
MAJOR FRASER,
 of the
ROYAL ENGINEERS,
 especially
 for Officers' Kits.
 Weighs only 8 ounces.



(REGISTERED.)

No. 20 H.

It has been approved
by theAuthorities at the
 Horse Guards, and is
 been largely
 used in the Afghan and
 Zulu Expeditions.

Sample sent free by Post on receipt of FOUR SHILLINGS.

DOMESTIC

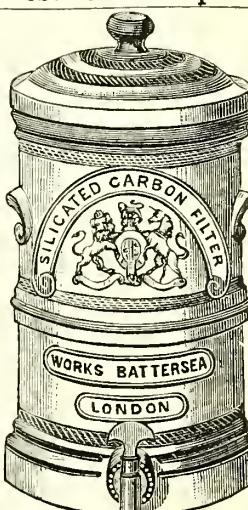
Made in cream-coloured Stoneware, fitted with the Silicated Carbon Media, complete with Cover and Silver-plated Tap.

All sizes of this pattern can now be had with Ice Compartment, which renders this Filter the most perfect of Refrigerators.

FILTER, NO. 2¹

PRICES.

		With Compartment	
No. O,	capacity $\frac{1}{2}$ gallon	10s. 6d.	
No. A,	" 1 "	14s. 6d. ...	1 6d.
No. B,	" 2 "	21s. 0d. ...	2 0d.
No. C,	" 4 "	32s. 0d. ...	3 0d.
No. D,	" 6 "	42s. 0d. ...	4 0d.
No. E,	" 8 "	52s. 0d. ...	5 0d.
No. F,	" 12 "	70s. 0d. ...	6 0d.



MAIN SUPPLY FILTER, NO. 40.

SPECIALLY ADAPTED FOR
 Mansions, Schools, Hospitals, Public
 Institutions, Breweries, Distilleries,
 Soda Water Manufactories,
 Dye Works,

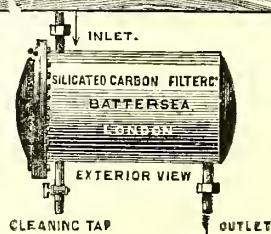
And all other Establishments where large quantities of

PURE WATER

Are required.

The ordinary Sizes kept in Stock are as follows :—

A, $\frac{1}{2}$ -inch or $\frac{3}{4}$ -inch pipe	£6 6s.
B, 1-inch pipe	£9 9s.
C, $\frac{3}{4}$ -inch, $1\frac{1}{4}$ -inch pipe	£15 15s.
D, 2-inch pipe	£26 5s.



This Filter is extremely simple in construction, and can be either connected with a Cistern or attached to the Main Service Pipe. It requires no attention beyond an occasional opening of the Cleansing Tap, and will deliver 1,000 gallons of purified water at a rate of 50 per hour, according to size.

Special Contracts entered into
 for Large Works, Institutions,
 &c., &c.,

FOR PURIFYING THE WHOLE OF THE WATER SUPPLY OF A BUILDING BEFORE USE.
Ensuring Rapid and Perfect Filtration, at either High or Low Pressure.

SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON.

BISHOP'S**GRANULAR EFFERVESCENT SALTS.**

ESTABLISHED 1857.



The LANCET, writing of Bishop's Preparations, says—"Their excellence is well known." The BRITISH MEDICAL JOURNAL says—"The name of Mr. Bishop is a sufficient guarantee that the article is skilfully prepared."

**BISHOP'S
GRANULAR EFFERVESCENT CITRATE OF CAFFEINE.**

THE BEST KNOWN REMEDY FOR HEADACHE.

This Salt has been most extensively used as a remedy for sick headache, and with such great success that it may almost be called a specific. It relieves all disorders of nerve-function, and is at the same time most cooling and refreshing.

BISHOP'S GRANULAR EFFERVESCENT CITRATE OF CAFFEINE is sold in bottles at 2s. 6d. each. With each bottle is supplied a wooden measure cup, which, when filled, but not heaped, gives an exact dose. The Granular Effervescent Citrate of Caffeine should be taken at the commencement of an attack of headache, and the dose should be repeated in an hour if any pain should remain. Testimonials from the most eminent medical men in the profession enclosed with each bottle.

An eminent Birmingham Physician writes:—"I like the EFFERVESCENT CITRATE OF CAFFEINE prepared by Bishop very much. It is a particularly valuable medicine as a morning restorative; and, after brain exhaustion, or where sedentary occupation have reduced the tone of the system, it may be taken with perfect safety and great advantage."

**BISHOP'S
GRANULAR EFFERVESCENT CITRATE OF POTASH.**

Contains eight grains of this anti-febrile salt in each drachm, keeps well, and yields a delicious effervescent draught. It is more efficient, more economical, and more convenient than the ordinary alkaline waters, and much superior to the various mixed powders, which consist mainly of Tartrate of Soda.

The late Mr. Fewtress, Analytical Chemist, wrote:—"It is the nicest effervescing preparation I have ever tasted, and is infinitely pleasanter than the bottled waters."

Dr. G. O. DREWERY, in his "Common Sense Management of the Stomach," recommends for Indigestion, Constipation, &c., the "GRANULAR EFFERVESCENT CITRATE OF POTASH" as a very agreeable, mild, and cooling laxative, when taken in doses of one dessert spoonful in half-a-pint of water before breakfast.

**BISHOP'S
GRANULAR EFFERVESCENT MINERAL WATER SALTS.**

For the preparation of artificial waters, these Granular Effervescent Salts are especially suitable. They give a refreshing draught, and may be relied on as presenting at the same time the chemical ingredients of the natural waters. It is obvious that in this form the Granular Effervescent preparations present many advantages over the waters themselves. Whilst all the constituents of the natural springs are reproduced, the Salts are extremely portable, more economical, and with them a sparkling refreshing draught is procurable in any quantity at any time. Among the Mineral Water Salts thus prepared may be named, Carlsbad, Kissingen, Pullna, Seltzer, Vichy, Lithia, Friedrichshall, &c., &c. In each case a teaspoonful of the Salt in a tumbler of water will produce a draught similar in effect to the natural water. The Seltzer Water has been long recognised, both in this country and in Europe, as an excellent tonic and mild aperient. A bottle of the Granular Effervescent preparation of this Salt is a great addition to the dinner table, as a small draught of the wholesome and refreshing beverage prepared from it, and taken during dinner, is both agreeable and beneficial.

**BISHOP'S
GRANULAR EFFERVESCENT CITRATE OF MAGNESIA.**

A perfectly white, and delicately clean preparation, prepared from salts obtained from the Pure Fruit Juices of Lemons and Grapes.

The best chemists in Great Britain and the Colonies keep no other "Granular Effervescent Citrate of Magnesia" than "Bishop's." The reason for this universal preference is that, since its introduction in 1857, it has been found that none of the Imitations of this preparation, originally introduced by Mr. Bishop, have been able to compare with it in reliability as a medicine, or in purity and freshness of flavour as a cooling drink. Full directions on each bottle.

Sold in convenient sizes to suit the Buyer.

Report on Mr. Bishop's Granular Effervescent Preparations. By Professor Attfield, Ph.D., F.B.S., F.I.C., F.C.S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, Author of a Manual on General Metal and Pharmaceutical Chemist

London, 17 Bloomsbury Square, W.C.

Mr. Bishop's Granular Effervescent Preparations have been known to me for more than twenty years. The maker has submitted to me the formulæ for them. I have seen them compounded at his factory; I have more than once tested the materials he uses; I have many times analysed the finished products. The formulae are excellent, the ingredients are, the processes perfect, the products all that can be desired.

(Signed)

JOHN ATTFIELD.

Dec. 6, 1881.

Observe the Name on the Seal, the Registered Trade Mark on the Label, and full address of
ALFRED BISHOP, Manufacturing Chymist,
17 Speck's Fields, Mile End New Town, London.



Messrs. JOHN WYETH & BROTHER are Sole Agents in the United States for
Mr. Bishop's Preparations, and keep Stock of all the above products.

DR. WARD COUSINS'

EAR PROTECTOR

(REGISTERED)



JULY 2ND, 1881.)

Exhibited at the British Medical Association, 1881.

THE EAR PROTECTOR is a simple elastic cushion admirably adapted to prevent the injurious effects of COLD, SUDDEN SHOCK, or NOISE. It can be instantly adjusted in the orifice of the external ear; and it is made in several sizes to suit the varying capacity of the Auditory Canal.

THE EAR PROTECTOR does not suspend the sense of hearing, but only modifies and reduces the intensity of sound; at the same time it prevents the shock of cold or noise upon the delicate drum, which in many persons is followed by deafness, discomfort, giddiness, and "noises in the head."

THE EAR PROTECTOR is specially adapted for SWIMMERS and DIVERS, and all PERSONS who suffer from any kind of aural disturbance AFTER BATHING; for ENGINEERS and ARTISANS daily working in the noise of factories; for SOLDIERS and ARTILLERYMEN who are exposed to the blast of cannon; and for TRAVELLERS and ALL PERSONS exposed to SEVERE COLD or WIND.

THE EAR PROTECTOR is a complete substitute for the unsightly and inconvenient plug of cotton wool; and it can be safely used by ALL persons labouring under AURAL WEAKNESS, and by all susceptible to PAIN and COLD in the EAR.

It is made in Five Sizes, put up in boxes of one pair. Retail 1/- per pair. Price to the Trade, 8/- per dozen pairs, less usual discount.

SELECT TESTIMONIALS.

From Sir WILLIAM BROOKE, F.R.S., F.S.A., London.

"Dr. Ward Cousins' Ear Protector is a most useful and valuable invention for preventing the ill effects of cold, and the shock of loud noises to sensitive ear. For bathers and persons close to the firing of cannon, and many facilitate the use of this very cheap and simple protector must prove extremely beneficial."

From Surgeon-General J. MOUTAT, V.C., C.B., M.D., &c., London.

"Dr. Ward Cousins has sent me a simple and ingenious Ear Protector almost colourless, for shock and noise, in the form of a very small vulcanite ball, resembling the top portion of the finger of an inverted glove, which when introduced into the ear, effectually prevents the entrance of cold, air, or water, and deadens noise. I consider this invention admirably adapted for purposes for which it is intended."

From Surgeon-General HENRY F. WILLIAMS, M.D., &c., Southsea. "I have examined your Ear Protector, and am of opinion that as soon as it is adopted generally by those exposed to sudden and loud explosions, as well as continuous noise from engines and machinery, much benefit as well as convenience will be experienced."

"The easiness with which the ear tolerates its presence, non-unsightliness, in comparison with cotton wool, its portability, and trifling cost recommends its adoption."

From B. SCHWARZBACH, M.D., Professor of *Aural and Ophthalmic Surgery* at the University of Königsberg.

"Many thanks for sending me some of your Ear Protectors. I have tried them on son of my patients and consider your invention a capital idea. It reduces the sound by one half, but it also gives to the external ear a equal and pleasant degree of warmth, which is essential in removing the so-called middle-ear catarrh. I am using one myself when going swimming."

From W. MURRELL, Esq., M.R.C.S., Southsea.

"I consider Dr. Ward Cousins' Ear Protectors most valuable to swimmers as well as those exposed to deafening noises."

From Surgeon-General J. A. WOOLFRYES, C.B., M.D., &c.

"I can speak highly of Dr. Ward Cousins' Ear Protector as a preventive of the entry of water into the ear, having regularly used it during the late bathing season; and consider that it would be very efficacious as a preventive against shock to the *tympanum* during artillery practice."

SOUTHSEA, November 7, 1881. J. A. WOOLFRYES, Surgeon-General."

From SERGEANT W. TUOHY, late R.A., and Swimming Instructor to the Admiralty—Professional Instructor to the Portsmouth Swimming Club.

"I have used Dr. Ward Cousins' Ear Protectors for diving and swimming with great comfort, and much wish the admirable little contrivance had been brought out sixty years ago. I am confident that a large number of persons are prevented from bathing in consequence of sensitive ears, and the protector will be a great boon to them. It is also an excellent invention for protecting the ear from the hurtful effects of loud noise, and serious injury which I have known occur during gun practice."

STATION HOSPITAL, GOSPORT,

November 9, 1881.

DEAR DR. WARD COUSINS,
Your little invention to protect the ear on occasions when the organ is exposed to concussions from the firing of heavy ordnance, or from draughts, or whilst bathing, &c., seems well adapted to its purpose, whilst it has also the great merit of being very portable and of easy application.

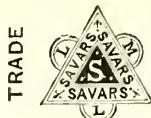
It should be of very great service to those whose hearing is easily disordered by external impressions. Yours sincerely,

G. GRIBBON, Surgeon-Major, A.M.D.,
In charge Gosport Station Hospital."

MANUFACTURED SOLELY BY

LYNCH & CO.,

ALDERSGATE STREET, LONDON.



MARK.

SAVAR'S PROPRIETARY SPECIALITIES.

Household Requisites. — Medical Requisites. — Toilet Requisites.



HOUSEHOLD REQUISITES.

SAVAR'S ANIMAL SOAP (Non-Poisonous).—For Washing Dogs and Domestic Animals. 6d. packets.

SAVAR'S BRUNSWICK BLACK (Superior Quality).—For Blacking Chimney Corners, Grates, Stoves on-work, &c., and recommended for Fancy Basket Work. 6d. and 1s. Bottles.

SAVAR'S CARBOLIC ACID SOAP (containing 8 per cent. of acid).—For Domestic Use, Scouring, &c. 6d. lb.

SAVAR'S COTTON WOOL (Superior Quality and Specially Prepared).—6d. and 1s. boxes.

SAVAR'S FEEDING BOTTLES (Various, Nos. 1 to 9).—These Feeding Bottles are fitted with the quality of Materials, the India-rubber being specially prepared, and guaranteed innocuous. 6d. 1s. and 2s. each.

SAVAR'S FLY PAPERS.—Cheapest and most effectual for the Destruction of all kinds of Insects.

SAVAR'S FOSSILINE (SIMPLE).—For Protecting Fire Irons and Steel Goods from Rust.

SAVAR'S FURNITURE POLISH.—Gives a brilliant lustre to all kinds of French-polished Furniture and Removes Stains. In bottles, 1d., 2d., 6d., and 1s. each.

SAVAR'S KNIFE POLISH (for India-rubber or Leather Knives Boards).—Will be found of superior quality, produces brilliant results with very little labour and wear of the articles polished, giving them if regularised the appearance of new goods. 6d. and 1s. canisters.

SAVAR'S MARKING INK.—Indelible, guaranteed permanent, and does not injure the texture of material. 6d. and 1s. bottles.

SAVAR'S POMADE.—Family Magnum, nicely Perfumed. Large 1s. bottles.

SAVAR'S SOAPS.—Perfumed. Brown Windsor, Curd, Fossiline, Glycerine (Sunflower), Glycerine and Honey, Oatmeal, and Transparent Glycerine, in 2d., 3d., 4d., and 6d. tablets, and 1s. boxes.

MEDICAL REQUISITES.

SAVAR'S ABSORBENT COTTON WOOL.—Medicated. 6d. and 1s. boxes.

SAVAR'S BREAST EXHAUSTERS.—Pumps and Relievers (various). 1s. to 12s. 6d. each.

SAVAR'S CARBOLIC ACID SOAP.—For Toilet and Domestic Purposes. 4d. tablets, 1s. boxes.

SAVAR'S CHEST PROTECTORS (Various).—These Felt Chest Protectors are manufactured from the best Lambswool, purified and dyed without the aid of Chemicals.

SAVAR'S COMBINATION MEDICINE SPOON (China) consists of the actual Tea-spoon, Dessert-spoon, and Table-spoon combined. 1s. 6d. each.

SAVAR'S EAR SYRINGE.—Glass, with Finger Ring. 1s. each.

SAVAR'S EMOLLIENT CAMPHOR ROLLS.—For Chapped Hands, &c. 1d., 2d., 4d., and 6d. boxes.

SAVAR'S ENEMA SYRINGE—Improved shape, India-rubber, by which a continuous flow is secured. 1s. each.

SAVAR'S FELT CORN AND BUNION PLASTERS (Ordinary).—In 6d. boxes.

SAVAR'S FOSSILINE CORN AND BUNION PLASTERS (Patent).—These Plasters stick without warming, and may be removed and replaced without inconvenience; they are emollient and comfortable. 6d. and 1s. boxes.

SAVAR'S FOSSILINE ADHESIVE PLASTER (Patent).—Sticks readily without warming. It adheres to bleeding wounds it may be removed with ease, and replaced if necessary; it is soothing and healing. Price 6d. for family use 9d. each, or may be purchased by the yard; it is also spread on Holland, and highly recommended by the Faculty as an application to bed sores.

SAVAR'S FOSSILINE SIMPLE (Petroleum Jelly).—Is recommended as an application for Burn Cuts, Bruises and Sprains, Sunburn, Chilblains, &c., and against the Bites of Poisonous Insects. 6d. and 1s. boxes.

SAVAR'S "GOOD SAMARITAN" CHEST PROTECTORS are the Cheapest Vest-shape Protector, made; they effectually protect both Chest and Lungs, and are manufactured from the best materials. 2s. 6d. to each.

SAVAR'S "GOOD SAMARITAN" POROUS PLASTERS (Capsicum, Belladonna, and Strengthening). These Plasters are protected by Royal Letters Patent, they are equal to any Porous Plaster sold, and are not like the American Porous Plasters—a compound of India-rubber to make them stick—but they are compound from Medicines authorised by the British Pharmacopoeia, and they stick easily without warming. Price 4d. each.

SAVAR'S GUTTA PERCHA TISSUE.—In 6d. and 1s. boxes.

SAVAR'S NIPPLE SHIELDS (Various).—4d. to 1s. each.

SAVAR'S OILED SILK (Non-adhesive).—In 6d. and 1s. boxes.

SAVAR'S POROUS POOR MAN'S PLASTERS (by Royal Letters Patent).—These are far more durable than ordinary Poor Man's Plasters, and they stick without warming. 3d. each.

SAVAR'S PLASTERS, MARGINAL.—On Leather, Plain and Porous, Heart Shape, Long Shape, Saddle-shape, &c. Balsamic, Belladonna, Capsicum, Roborans, Strengthening, &c. 1d. to 1s. 6d. each, according to size and material.

SAVAR'S RESPIRATORS (Various).—1s. 6d. to 7s. 6d. each.

SAVAR'S TRUSSES.—Of best material.

SAVAR'S VACCINATION SHIELDS for protecting the punctured spot. 6d. and 1s. each.

A Complete Price Current of Druggists' Sundries, Proprietary Articles, Patent Medicines, &c., supplied on application.

SOLE PROPRIETORS—EVANS, SONS & CO., 56 HANOVER ST., LIVERPOOL.

MANCHESTER OFFICE AND SHOWROOM—1 & 2 Exchange Buildings, Cromford Court, Market Street.

H. SUGDEN EVANS & CO., Montreal, Canada, and Rouse's Point, New York. EVANS, LESCHER & WEBB, L. I. O.



CORRY'S PURE RE-CARBONATED FLUID MAGNESIA.

BY MAJESTY'S SPECIAL AUTHORITY.
UNDER ROYAL LETTERS PATENT.

s recommended by the most Eminent Physicians
as a safe remedy for Acidity of the Stomach,
Heartburn, Headache, Indigestion, Gout, Rheu-
matism, &c., &c.

Each Box of this unrivalled preparation is larger in size, more agreeable
in its flavor, and superior in strength and quality to any similar medicine
in use, besides yielding a larger profit to the vendor.

IN BOTTLES 1/- EACH.

Prepared by WM. CORRY & CO.,
CROMAC SPRINGS, BELFAST.
Franci Newbery & Sons, Wholesale Agents, London.

To be had of all Chemists and Medicine Vendors.



A teaspoonful of CORRY'S CONCENTRATED LEMON SYRUP
(1s. per bottle) added to the Fluid Magnesia forms a most
delicious effervescent draught, admirably adapted to the
use of Ladies and Children as an aperient.

AMPLOUGH'S EFFERVESCENT PYRETIC SALINE.

HAVE IT IN YOUR HOUSES AND TRAVELS, USING NO OTHER SALINE;
it gives instant relief in Headaches, Sore or Bilious Sickness, and quickly cures the worst form of Eruptive
or Skin Complaints. The various diseases arising from Constipation, the Liver, or Blood Impurities, Inoculation,
the results of breathing air infected with Fevers, Measles, or Smallpox, are frequently prevented and
certainly cured by its use.

The sale of these Saline Salts having greatly increased during the past few years, I beg most cordially to
thank those who sell and recommend the same, and also to inform intending dealers that they will find Messrs.
BARCLAY, EDWARDS, MAW, NEWBERRY, SANGER, SUTTON, and the Wholesale Houses generally, ready to supply
their wants. This Advertisement is found useful in consequence of the trouble, cost, and inconvenience in the
keeping and collection of numerous small accounts. Note.—The Name, Trade Mark, Labels, Wrappers, &c., are
all Registered and Entered at Stationers' Hall. 113 HOLBORN HILL, LONDON, E.C.

NOTICE.—Medical Gentlemen having fever cases, and desirous of trying the Saline, can have a single bottle at wholesale price,
by sending their cards.



FOR YOUNG
AND OLD.

LOUGHTON'S SALIS SALINE.

FOR THE
BLOOD.

THE GREAT HEALTH RESTORER.

IS THE CHEAPEST AND BEST.

SALIS SALINE is a pleasant Effervescent Salt, that Purifies the Blood and Removes all Disorders of the Liver
and Stomach, Invigorates the Body, a SURE REMEDY for Gout and Rheumatism.

sole Wholesale Agents: NASH BROTHERS & LAWTON, 126 Union Street, SOUTHWARK.

JOHN MACKAY & CO.,
CANNING STREET, EDINBURGH
MANUFACTURERS OF

GRANULAR EFFERVESCENT CITRATE OF MAGNESIA

AND ALL OTHER GRANULAR PREPARATIONS.

SAMPLES AND QUOTATIONS FORWARDED ON APPLICATION.

SPECIAL TERMS TO LARGE BUYERS.

A GREAT SUCCESS.

THE NEW FRENCH

CORN PLASTER

For effectually removing hard and soft corns and bunions, and reducing
enlarged toe joints, imported by Mr. M. F. THOMPSON, is a simple and
efficacious means of effecting the removal of corns, and whilst other plasters
are thick and awkward, this French Plaster is thin as silk and comfortable
to the foot.

"There can be little doubt that Mr. Thompson has scored a success with
this French Corn Plaster." LADY MAUDE."

Packets, 1 1/4 each, by post one stamp extra, from

M. F. THOMPSON,
HOMEOPATHIC CHEMIST,

17 GORDON STREET, GLASGOW.

Wholesale Price, 7s per dozen. NET CASH WITH ORDER. Postage, 3d.
BEWARE OF IMITATIONS.

LLOYD'S PATENT BRONCHITIS KETTLES, Or VAPORIZERS,

Gave UNIVERSAL SATISFACTION at the MEDICAL and
SANITARY EXHIBITION, 1881, for which a CERTIFICATE
OF MERIT was Awarded.

Prices from 7/6 upwards.

WHOLESALE AGENTS—

S. MAW, SON, & THOMPSON, LONDON.

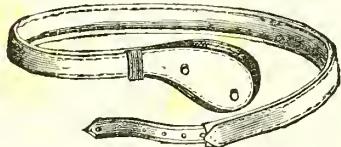


W. H. BAILEY & SON,
38 (late 16) OXFORD ST., LONDON,
Six Doors from Hanway Street.
ESTABLISHED A.D. 1833.



FIRST PRIZE (SILVER MEDAL) FOR TRUSSES AWARDED BY THE WORSHIPFUL COMPANY OF CUTLERS OF THE CITY OF LONDON, MAY, 1862.

FIG. 1.



TRUSSES.

Circular Trusses, single, as Fig. 1, basil and chamois or basil and moleskin	per doz.	£1 1 0
Circular Trusses, double, basil and chamois or basil and moleskin	per doz.	1 14 0
with extending backs	"	2 14 0
Salmon & Ody's Expired Patent, single, Fig. 4	"	1 10 0
double, Fig. 5	"	3 0 0
Moc-Main Lever, single ..	each	0 8 0
double ..	"	0 13 6
Cole's Expired Patent, single ..	"	0 6 0
double ..	"	0 12 0
Scrotal Trusses, basil and chamois or moleskin, single ..	"	0 4 0
double ..	"	0 7 0

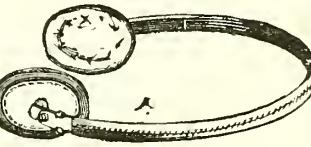


FIG. 4.

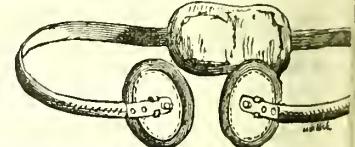


FIG. 5.

SUSPENSORY BANDAGES—continued.

No.	6. Silk Oxonian, superior quality, bands of buff jean, with drawing-strings	per doz.	£	s.	d.
7. Silk Bags, to button on, with tape under-straps ..	"	"	0	3	8
8. " " " under-straps to button ..	"	"	0	3	6

ELASTIC STOCKINGS, KNEE-CAPS, ETC.

Manufactured expressly for Export, and warranted to stand a hot climate better than any others in the Market.

	Silk.	Super-Silk.	Cotton.	£	s.	d.
Stockings	per pair	0	9	6
Knee-caps	"	0	6	6
Calf-pieces	"	0	7	0
Socks	"	0	5	6
Wristbands	"	0	2	—
Knee Stockings	"	0	16	0
Belts, to draw on	each	0	16	8

SUSPENSORY BANDAGES.

No.	1. Cotton Bags and tape under-straps ..	per doz.	0	8	0
2. Cotton Oxonian, with drawing-strings ..	"	"	0	10	0
3. Silk Bags and tape under-straps ..	"	"	1	1	0
4. Silk Oxonian, with drawing-strings ..	"	"	0	18	0
5. " " " Bags bound with elastic ..	"	"	1	4	0

The above may be obtained direct from the Manufacturers, or from their Wholesale and Export Agents
Messrs. Barclay & Sons, 95 Farringdon Street.

COLTHURST & HARDING

PHœNIX COLOUR WORKS, BRISTOL,

Also Petroleum and Benzoline Stores at Gloucester
MANUFACTURERS OF

WHITE LEAD, PAINTS, AND COLOURS

Also VARNISHES of every Description

For Painters, Coachbuilders, and Japanners,

packed in Casks and Tins of all sizes.

PAINTS IN TINS

TRADE
Ball denotes

All Colours in 1, 2, 4, 7, and 14 lbs.

SOFT SOAP, GREASES, LINSEED

MIXED FOR US.

MARK.

Colour of Paint.

All Colours in 1, 2, 4, 7, and 14 lbs.

MEAL, AND CRUSHED LINS

IMPORTERS OF

Petroleum, Benzoline, Gasoline, Turpentine, Olive, Colza, Cod, Castor, Seal, Whale, and Lamp Oils; Tallow, Pitch, Rosin, &c., &c. Sole Proprietors of the

CELEBRATED ELECTRIC LIGHT OIL

The most beautiful and perfect Illuminator.

OIL REFINERS AND DRYSALTERS.

NEW GOODS.

Special Notice to the Trade.

We beg to notify that the Proprietors of Lundborg's Perfumes have appointed us their Sole European Agents.

The LUNDBORG'S PERFUMES have gained such popular favour in other countries that we anticipate for them an equal appreciation in the United Kingdom by people of refinement and good taste.



1 oz. Bots., 2ls. per doz.

In America these goods occupy pre-eminently the first rank for quality above any foreign perfumes.

For Delicacy, Richness, and Permanency Lundborg's Extracts certainly have no equal.

The rare excellence of quality, combined with the elegant and tasteful style in which they are put up, renders them once attractive and readily saleable.

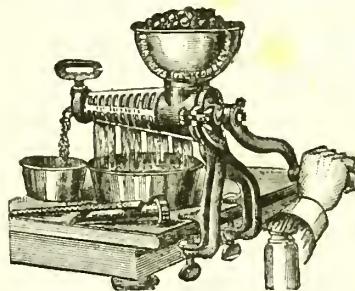
As novelties in this market, the trade will, we believe, be glad to introduce them, & they yield a good profit and do credit to the introducer.

MARECHAL NIEL ROSE 2 oz. Bots., 33s. per doz.
EDENIA 1 oz. Bots., 2ls. per doz.

THE ENTERPRISE TINCTURE PRESS.

Specially adapted for Coarse and Fibrous Drugs.

The principle upon which this Press operates is, that the drug is acted upon in a continuous thin layer which is forced forward by each revolution of the screw into smaller and smaller space, the leverage yielding a force so powerful as to extract almost the entire moist ~~re~~, delivering the residue of suitable drugs with almost crisp dryness, and, as experience has shown, it saves a greater amount of Tincture (very important in the case of Tincture of Opium and other expensive drugs) than even the most powerful Hydraulic Press. So thorough is its action



in this respect that the *Chemists' Journal* has humorously remarked of it that "it will almost squeeze blood out of a turnip." One firm informs us that they have saved at least £20 more in three months, by the use of this Press, than they could secure by using any other. The working of this Press being continuous, either small or very large quantities may be operated upon at one time, and much more rapidly than in any other form of apparatus.

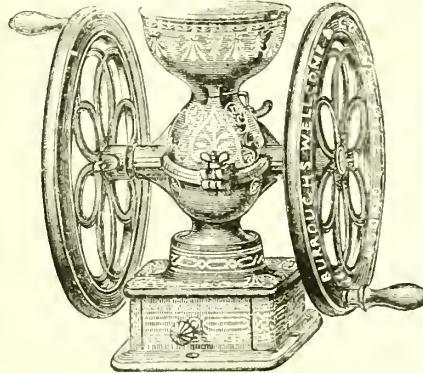
The fact that drugs require handling but once, that the use of press cloths is done away with, and that the operation is continuous, shows a great advantage in this Press over any other.

Price 15 shillings, subject to the usual discount. Obtainable from every Wholesale Druggist.

THE ENTERPRISE DRUG MILL.

Constructed on an improved principle, the cutters being easily removable for inspection, or for cleaning. It may be regulated to grind to any degree of fineness or coarseness, by simply turning a single thumbscrew. Is adapted to almost any dry pulverizable substance; it works rapidly and is economical.

Professor MAISCH, one of the highest American authorities on pharmacy, says that "It is the best drug mill that has yet been devised. It is intended to displace the use of the mortar for general purposes in pulverizing drugs."



*Prices { Plain .. . 40s., 60s., 100s. } each.
Ornamented 50s., 70s., 110s.
Subject to the usual discount for cash.*

All of the Articles mentioned above may be obtained from any respectable wholesale firm, or from BURROUGHS, WELLCOME & CO., of 7 SNOW HILL, LONDON, E.C., the sole European Dépôt.

SOUTHALL'S "AQUARIUM" SEA SALT FOR SEA WATER BATHS

The following voluntary Testimonial has just been received from H. J. HARDWICKE, M.D., F.R.C.S.
M.R.C.P. Ed., &c., Senior Physician to the Sheffield Public Hospital for Skin Diseases, &c., &c.:—

To MESSRS. SOUTHALL BROS. & BARCLAY.

GENTLEMEN.—Your Sea Salt is a very valuable agent in the treatment of disease, having, when used in baths, a remarkable effect on the system. Under continued use the perspiration and flow of urine are increased, relieving the glands of the skin and the kidneys; the elimination of chlorides of sodium and phosphates from the body is diminished; the appetite improves; the bowels act more regularly; the whole system is stimulated; and the weight of the body increased.

In such diseases as Lepra (Psoriasis) and Eczema, however, where there is *morbid deposit* on the surface of the skin, Sea Salt should not be used.

I believe your preparation of Sea Salt to be genuine, and valuable in the treatment of most diseases I am, Gentlemen, yours, &c., H. J. HARDWICKE.



In each Box is an Earthenware Cup which holds sufficient for one bath. The box is lined with waterproof paper. The Salt being in coarse powder dissolves at once.

Retailed in Boxes (with measure), at 1/-, 1/6, and 2/6 each.

DIRECTIONS.—For sea water of full strength add a gallon of water to each measureful of Salt. For aquarium purposes adjust the specific gravity with a hydrometer or gravity bubble so that its specific gravity shall be 1.027 at 60 deg. Fahr.

SOUTHALL BROS. & BARCLAY, Manufacturing Pharmaceutical Chemists. BIRMINGHAM.

DRAPER'S INK (DICHROIC)

THE NEW BLACK INK, different from anything else ever produced. Writing becomes a pleasure when this Ink is used. It has been adopted by the principal Banks' Offices, and Railway Companies throughout Ireland.

It writes almost instantly full black.

Does not corrode Steel Pens.

Dries rapidly on the Paper.

Is cleanly to use, and not liable to blot.

Flows easily from the Pen.

Blotting-paper may be applied at the moment of writing.

In Jars, 6d., 1s., and 2s. each.

Can be obtained, in London, through MESSRS. BARCLAY and SONS, Farringdon Street; W. EDWARDS & SON, 157 Queen Street, London, E.C.; F. NEWBERRY and SON, Newgate Street; S. MAW, SON, and THOMPSON, Aldersgate Street; JONES & CO., 98 Southwark Street; HARVEY, SHEPHERD & CO., Charterhouse Square, London; WM. MATHER, Manchester; AYNSLEY & SAUNDERS, Duke Street, Liverpool; and GOODALL, BACKHOUSE & CO., Leeds.

BEWLEY & DRAPER, Limited, DUBLIN.

See "CHEMIST AND DRUGGIST," December 15th, 1874.

**SAVORY &
MOORE'S BEST
FOOD FOR
INFANTS**

USED IN THE
ROYAL NURSERIES.

MALTED & COOKED
READY FOR USE WITHOUT
BOILING OR STRAINING.

Tins, 1/-, 2/-, 5/- & 10/-.

OFFERS ADVANTAGES OVER ALL OTHER FOODS IN THE MARKET.

The ONLY FOOD prepared
expressly for INFANT.

A combination the result of the latest physiologic experiments upon Liebig's original formula. The grain of the Ferina are thoroughly broken and cooked, and are ready for conversion into food. It is also associated with the diastase of known digestive activity, and the nutrients in due proportions. THIS FOOD IS HEREBEFORE REALLY "SELF-DIGESTING" in the stomach, and conveys nourishment for every part of the human frame. Possesses every requirement for the Children brought up wholly or partially by hand.

LIQUID EXTRACTS OF THE DIGESTIVE FERMENTS.

"Most powerful preparations in the form of mother liquors," of pleasant odour and taste.

PANCREATINE,
Neutral Essence of.

A perfectly tasteless preparation, specially adapted for the peptonisation of milk, arrowroot, and other mucilaginous articles of diet in general use in the sick-room.

Dose, 1 drachm.

These Preparations are obtainable in 4, 8, and 16 oz. Bottles, or any quantity required, of all Wholesale and Retail Chemists.

PANCREATINE,
Sa'ine Essence of.

The most powerful agent for the digestion of Fat and Farinaceous Foods.

These preparations are reliable and concentrated forms adapted for all the purposes for which Pancreatine and Pepsine are administered.

Dose, 1 drachm. (See *British Medical Journal*, Dec. 13, 1879, p. 965, &c.)

PEPSINE,
Saline Essence of.

The most powerful agent for the digestion of Meat, Milk, Eggs, etc. May be taken with Food as a Sauce or Ketchup.

These preparations are reliable and concentrated forms adapted for all the purposes for which Pancreatine and Pepsine are administered.

Dose, 1 drachm. (See *British Medical Journal*, Dec. 13, 1879, p. 965, &c.)

PEPSINE EX IR
(Acid Glycerole of pepsin).

A convenient solut. for all mixtures with other Iron, Bismuth, etc., nature rendering it easy with other syrups & aquaeous fluids.

Dose, 1 drachm.

NUTRITIVE, OR MIXED PEPTONE ENEMA

(Enema Peptonicum, Savory),

Consisting of mixed Peptonised Foods for injection per Rectum, thus supplementing and relieving the Digestive Organs. Prepared at the suggestion of A. E. SANSOM, Esq., M.D., &c. Each bottle contains two small or one full dose.

SAVORY & MOORE, 143 New Bond St., LONDON.



COLONIAL BUILDINGS, 44A CANNON STREET, LONDON, E.O.

Published on the 15th of each Month.

Subscription, 10s. per year, payable in advance; commencing from any date.

Postage to every country in the world. Single Copies, 1s. each.

Post Office Orders to be made payable to EDWARD HALSE, at the General Post Office.

Literary Contents.

	PAGE
Month	187
Corner Students	188
Pharmaceutical Society	189
Pharmaceutical Council	191
Bill for regulating the Sale of Poisons	191
Pharmaceutical Society of Ireland	192
Metropolitan Reports	193
Dispensing Accident	194
Provincial reports	194
Microcosm and its Revelations	195
Phenol, Creosol, and Creasol, Comparative Tests	197
General Bills to the Dispenser	199
Clinical Thermometers	201
American Pharmacy	202
Pharmacy Australia	203
Balloons	203
Pharmaceutical Hints	204
Chemical City	204
Patent Medicines in the House of Commons	207
Miscellaneous Formulas	208
Editorial Notes	208
Regulations for the Sale of Poisons	210
The Case of Tubercular Disease	211
Proposed State Aid for a Veterinary College	212
Coffee and Cocoa Medicines	213
Editorial Notes—cont.	214
Annual Reports of the Pharmaceutical Society, and the Chemists and Druggists' Trade Association	212
Parisian Gos-jo	214
Reviews and Literary Notes—Professor Attfield on Pharmaceutical Education	215
Dr. Whitham's Elements of Pharmacy, Materia Medica, and Therapeutics	216
Personalities	217
Scientific Notes	217
Poisoning Cases	219
Obituary	220
Legal and Magisterial—Mustard and the Analysts	220
Trade-marks on Aerated-water Bottles	221
Castile Soap	221
Paukruptcies and Liquidations	222
Foreign and Colonial	222
Notes of Novelties	223
Medical Gleanings	224
Brevities	224
Trade Notes	224
Patents	225
Gazette	226
Exchange Column	227
Trade Report	229
Monthly Prices Current	231
Correspondence	233

THE MONTH

The Pharmaceutical Council, on the invitation of the Home Secretary, have submitted certain suggestions for the amendment of the law relating to the sale of poisons. They propose that wholesale dealers should be required to keep a record of their transactions for a year; that the exemption of patent medicines from the provisions of the Pharmacy Act should be repealed, so as to bring those containing poisons under the same restrictions as would apply to those poisons sold under another form; that a certain course of technical education and training should be required of those persons who sell poisons besides the qualifying examination; and that further restrictions on the retail sale or dispensing of poisons are unnecessary and impracticable.

Mr. Warton brought forward his long-announced speech on patent medicines in the House of Commons on Friday night last, and showed that he had made himself well acquainted with the subject. Mr. Hihbert, who spoke on behalf of the Government, remarked that Mr. Warton had shown more in the question than many people imagined and that it was worth the attention of the Government. Whether it was desirable to continue to raise even from patent medicines he was not prepared to say, but he is quite in sympathy with Mr. Warton in regard to the main purpose of his address.

The Pharmaceutical Society's annual meeting will be held at noon, at 17 Bloomsbury Square, on Wednesday next, May 17. Their report shows a total income of about 15,400*l.*, which exceeds the expenditure by 1,138*l.* They direct attention to the proposals they have made in regard to the sale of poisons, and for a curriculum. Probably criticism will turn on those subjects.

The Chemists and Druggists' Trade Association will hold their sixth annual general meeting at 12 30 on Tuesday next, the 16th inst., at the Inns of Court Hotel. Their report shows that their expenditure for the year has been about 1,070*l.*, while their income has been about 200*l.* short of that amount. The year has not been an eventful one with them.

The members and friends of the Pharmaceutical Society will hold their annual dinner at the Freemasons' Tavern on Tuesday evening next, May 16. Tickets, 30*s.* each, are supplied by Mr. R. Bremeridge, 17 Bloomsbury Square. The Society's *conversazione* will be held the next evening at South Kensington, at 8 P.M.

Professor Attfield has issued to the members of the Pharmaceutical Society generally copies of his vigorous pamphlet advocating the institution of a curriculum. We expect he will send a copy to any one interested who will apply to Ashlands, Watford.

A French chemist claims to have discovered a process for the synthesis of quinine, and has deposited at the Institute of France a sealed packet describing his process, pending the medical testing of his product.

We report a fatal dispensing accident, occasioned by the substitution in a mixture of solution of nitrate of mercury for solution of pernitrate of iron. The mistake seems to have originated with the wholesale house, who supplied the preparation wrongly labelled.

The Executive Committee of the International Pharmaceutical Congress held a meeting on April 28, at which the accounts of the entertainment fund were wound up. There was a balance in hand of 17*l.* 11*s.* 6*d.*, which was passed to the Secretary of the Pharmaceutical Society for the casual relief of necessitous members of the trade. A letter from the President of the International Pharmacopœia Commission (Mr. Waldheim) reporting progress was read. It appeared that opinions as to what articles should be included in the International Pharmacopœia had been received from the representatives of 11 countries, but had not been sent in by the representatives of 7 other nations. England was in the first category; France, Ireland, and the United States in the second.

The Revenue Bill now before the House of Commons contains a clause which will prevent the manufacture or sale of any mixture (except chicory), with coffee and of any mixture with cocoa. The clause is being vigorously opposed by the trades affected.

The Birkenhead Town Council have made a curious experiment. They mixed coffee and chicory in various proportions, and sent samples to their own and several other public analysts. Some of the analysts came very close to accuracy, Somerset House, Dr. Dupré, and Dr. Vacher being the widest from the mark.

Messrs. Colman & Co., of Norwich, have during the month defended various grocers prosecuted under the Sale of Food and Drugs Act for supplying as mustard a mixture of mustard with a certain percentage of flour. Messrs. Colman showed the necessity of this mixture, and in all cases gained a verdict.

and in this you infer that aluminium is present. A very superficial study of the principal blow-pipe tests ought to have enabled you to avoid so standard an error. What you observed is the most characteristic reaction of all.

J. S.— Cobalt compounds impart a blue colour to the borax bead, not to the Bunsen flame. The original powder was colourless, and, therefore, metal which yield coloured salts could only be present in small quantity, if at all. Prepare a mixture of equal parts of potash, alum, and of chloride, with about 1 per cent. each of a cobalt and of a chromium compound, and then go through the analysis just as you have described it. I can conclude that a precipitate is due to either chromium or cobalt without having examined it with the blowpipe; the reactions of these metals are most sensitive and characteristic.

W. F.— You will find that the ammonia you employed contains carbolic acid; this, at least, is the only explanation we can offer of your failure to detect zinc.

Pharmacalia.

BOTANICAL STUDIES.

GRE were the gardens, and in the freshness of their bean when, on Saturday, May 6, Professor Bentley gave his introductory lecture on Practical Botany at the Royal Botanical Society, Regent's Park. There was a good attendance and the condition of this class is most satisfactory. The course is as excellent as it is cheap; one guinea being paid before these morning demonstrations, when the mysteries of a difficult science are explained by the aid of the plants and flowers themselves, which, in their natural state, are admirable improvement on dried specimens and printed diagrams.

**

Most visitors to this London garden, the loveliness of which is unqualified, will remember the long glass corridor originally as a covered-way from the North Gate to the conservatory. It has of late been pressed into service for the spring and summer exhibitions, and has become too small. It is proposed to widen it throughout, from 12 feet to 25 feet, so that in future it may not be inadvertently crowded. A sum of 600*l.*, which will be raised without much difficulty, will be required for this increased accommodation.

**

During the quarter which has just elapsed Mr. Peter Squire presented a specimen of a curious development of elm roots, which are matted together, and found to completely choke a drain-pipe. A single root enters at sometimes at a considerable distance from the place to which it belongs, and immediately starts and divides into innumerable ramifications, when the small fibres cohere. This kind of development takes place when a tree-rooter, as those of willows growing on the margin of rivers. Perhaps the roots meeting with little resistance branch into many heads, and develop increased search of food; or, possibly, the less resistance with encourages a special sprouting or ramifications.

**

Great attention is being paid to the search for and supply of paper materials, owing to the enormous demand for rags, specimens of which may be seen growing in the garn. A vast variety of fibres and other materials derived from the vegetable kingdom have been brought forward next to linen rags, the most valuable is the *Macrotaenia leonisissima*, or esparto, a native of Tunis and Spain, some 100,000 lbs. annually, and it is feared that the supply may be exhausted.

A singular and beautiful flower, the *Hibiscus schizopetalus*, has been raised in the Society's green-house. It was discovered by Sir John Kirk, on the coast hills at Mombasa, Africa, and seeds of the plant were presented by him to the authorities in Regent's Park. It is distinct from all other species.

The Royal Botanic Society has turned its serious attention to the question of weeds on gravel walks, and the subject has been deemed of sufficient importance for the secretary to issue a report upon the subject. The official report states that experiments on the destruction of weeds have been made since 1869 with various substances. Amongst others, sulphuric, sulphurous, hydrochloric, and carbolic acids; sodium chloride, copper sulphate, zinc chloride, flowers of sulphur, paraffin oil, Burnett's and other disinfecting fluids have been essayed. Success was obtained with some refuse fluids presented to the Society from a colour-works in 1876, but the supply could not be renewed. It was used in the proportion of one to three of water; its application destroyed all vegetable growth, and none reappeared on the walks for more than three years after. Of the several agents tried from time to time, three were reserved for further experiment—sulphuric acid (1—15), carbolic acid (1—50), and sodium chloride (56 lbs.—125 pints). Sulphuric was immediately fatal to all vegetation on contact, carbolic was slow in action, salt was immediately fatal on a wet day or on a damp walk, but its preventive action only lasted for three or four months. Visitors may study these effects in the gardens at their leisure. A special machine has been devised for the distribution of the salt. It consists of a square box-sieve of perforated zinc, mounted on wheels with an automatic action, so arranged as to communicate to the sieve a jolting motion when drawn along the walk. It may be useful to allude to the Society's travelling plant-case as designed by Mr. W. Sowerby, though it is probably well known already to many of our readers. During transit it is treated exactly as a bird-cage containing a living bird, and it has proved very successful in preserving plants through long voyages.

**

The students having taken their places in the Museum, which is a sort of rustic structure close by the main entrance of the garden, Professor Bentley said that he had once more the pleasure of meeting the students of pharmacy in order to pursue with them the accustomed practical demonstrations. Some had desponded about the late coldness and unsettled state of the weather, but he felt sure that whenever he should be found in his place in the gardens he should be cheered with the sunshine of their presence. It was an advantage to begin at an early hour; and they must all be struck with seeing Nature, as they certainly did that morning, in her full beauty: the leaves unfolding, and the flowers bursting into new life. Let them learn this lesson from the leaves: they were perpetually storing up nourishment for future use, and so also should students store up knowledge in their youth which might serve them for the materials of success in after life. That morning he would be occupied in general observations. Opportunities were given in those gardens which could rarely be met with elsewhere. There were few—comparatively few—who had the advantage of studying in so large a field of observation, where there were hothouses, conservatories, appliances of all kinds, and beds laid out with plants arranged in Natural Orders, specially designed for botanical work.

The Council at Regent's Park had placed it within the reach of pharmaceutical students to do work in which they were specially interested. Whilst using these advantages they must be careful not to abuse them—a caution which it

was his official duty to make as Chairman of the Garden Committee, but for which his experience had taught him there was no other necessity. He had lectured there for many years—so many that he was obliged to resort to arithmetic to ascertain the correct number. He believed that it was more than 30, and he was glad to recognise amongst his pupils the sons of men he had known as students. He proposed, whenever convenient, to walk round the grounds after lecture, so that the botanical characters of the plants should be studied on the plants themselves—in all cases specimens could be had on application. The Professor then entered upon more detailed observations. At Bloomsbury Square he had described the different organs, such as the root, stem, and leaves, the organs of nutrition which feed the fruit and seed; and these had been treated both morphologically and with regard to histological characters. But in the Gardens it would be necessary to consider the same subjects practically, so as to be able to examine any plant and to ascertain its name. There was, moreover, a technical language which it was indispensable to acquire.

In the range of botanical study there was nothing more important than the leaf, and it would have to be described in all its variations: it underwent more modifications than any other part. It rose from the stem, and this constituted one difference between the stem and root, as the latter did not give off flattened organs. The leaf consisted of two parts—a skeleton or hard tissue, and soft matter: the ramifications of the former produced the veins or nerves; the soft part forming the parenchyma of the leaf.

**

When we were present at the reading of the two last Darwin papers at the Linnean Society, we observed, in common with others, that Mr. Francis Darwin, who read the papers for his father, invariably, and often, pronounced the word just written "parenchyma," that is with a short y vowel. Accustomed to the removal of ancient landmarks we carefully examined the matter, particularly as this pronunciation appeared to be accepted as a matter of course by the fellows present. We found that there was no justification whatever for the long vowel pronunciation, though adopted by Pereira and our own professors, and we are prepared to justify this statement both from the Greek derivation and from the practice of eminent botanists. We would, therefore, ask our fellow-students, who may satisfy themselves on the subject by reference to standard authorities, to call the word "parenchyma" in future.

**

The Professor, in continuation, said that in the leaf the tissues were spread out because it had to expose the food to the action of the light, whereas in the root, the function of which was to absorb moisture, the tissues were contracted. The leaf differed from the stem in the order of its development; for while in the stem the apex was the youngest part, the very reverse was the case in the leaf, where the apex was first formed, and was the oldest part. Leaves usually had two surfaces, the upper and the lower—sometimes, as in Eucalyptus, these surfaces were lateral.

The duration of leaves formed distinct characters: in this country, where they were articulated, they fell off without leaving a ragged appearance, and this was a usual characteristic of Dicotyledonous plants. It was not, however, invariable, for the oak, being non-articulated, did not present this character. In Monocotyledonous plants, as in the palms, in bulbous plants, and grasses, and also in Acoyledons, the leaf died gradually downwards, and gave sometimes a particularly ragged appearance.

Some leaves were deciduous, especially in this country; others, like the box and cherry-laurel, were evergreens, with

persistent leaves. Other leaves, being thick and fleshy, were termed succulent; and some leaves which grew underground were called scales. Leaves had three distinct parts when fully developed—the lamina, or blade; the petiole, or leaf-stalk; and the stipules. All three presented modifications which became distinctive.

The Professor was about to describe the insertion of the leaf when the time was exhausted.

He remarked that he should have to employ many Greek words in his lectures, but though there were lads present, such was the advance of high-school teaching that an explanation of these terms would scarcely be necessary as the derivation of most of them would be familiar.

With that comforting assurance, in which personally we do not share, we may leave Professor Bentle and the botanical demonstrations, wishing them the success which assuredly they deserve.

**

Attention is directed to the remarkable communication by J. E. T. Aitchison, F.L.S., Surgeon-Major H. Bengal Army, on "The Flora of the Kuram Valley, Afghanistan." This is a second paper on the same subject, read before the Linnean Society on June 16, 1881, and now printed in the April number of their journal. The author landed in Bombay on March 1, but, owing to delay caused in waiting for orders from Government, was unable to commence work at Kuram until May 29, too late for the spring vegetation. He was enabled, however, to botanise some portions of new country with tolerably satisfactory results, obtaining several new species, and adding considerably to the material of many of the more interesting species of former collections. He hopes to furnish some further particulars respecting the geographical range of particular species, illustrated by a set of analytical tables. The work thus modestly described is before the reader as an annotated list of the plants collected; a diagrammatic map of the Kuram Valley, including the Hariab district; a 30 plates, beautifully, and of course faithfully, designed.

Papers such as these can only be occasionally produced, such great pains being requisite for their execution. The author in his wanderings noticed that every native, when drinking from a spring of water, usually made a fresh drinking-ladle from the leaf of the Nannorrhops; but when he left the plains and got up into the western hills, bowls made from the bark of the acacia were usually to be found in the pools for general use. This custom he found extended as far west as the Zérán Valley, but there the bowls from the knots of the walnut constituted the universal drinking-cups. Either, therefore, only persons of the same brotherhood or of one caste traverse these parts, or the inhabitants are more liberally disposed.

How botanical mistakes may arise is shown in specimen of pine which for a brief period was supposed to be a new species. At the village of Zérán, cultivated a sacred species. At the village of Zérán, cultivated a sacred grove, the author came across one large old tree and several smaller younger ones of *Pinus halapensis*. It seems to be cultivated throughout Afghanistan, and Dr. C. Ell, when surgeon to the 10th Hussars in the Kabul Expedition, was the first to send specimens to Sir Joseph Hooker at Kew, recognising it as different from the ordinary Himalayan species.

Sir J. D. Hooker, deceived by having had it to him in one of this with leaves of *P. excelsa*, at first supposed it to be a new species. He himself, however, discovered the mistake, and rightly referred the specimen he had received to *P. halapensis* before the receipt of a perfect specimen from Mr. Aitchinson.

The author collected a plant called the *Corydalis ramosa*,

which is employed medicinally by the natives for the treatment of eye diseases. It happens to have a yellow watery juice, and every plant with a yellow juice is considered by them a sovereign remedy. The elaborate enumeration of the plants collected possesses a purely technical interest, but must be allowed that Surgeon-Major Aitchinson has utilised the advantages of his position, and has made a valuable contribution to the pages of original research.

* *

GENTLEMEN CADETS AS CHEMICAL STUDENTS.

We will read without astonishment or a strong feeling of indignation the pamphlet by C. L. Bloxam on "The Present Condition of the Royal Military Academy, Woolwich." The author, whose name is familiar to the whole chemical world therein details his experiences as a teacher for the last quarter of a century at the establishment just named. He's been compelled to resign his post on account of a laxity of discipline tolerated to an extent which, at first sight seem incredible.

Gentlemen cadets (the term is a misnomer) were allowed to behave in a manner which was as outrageous as it was out of keeping with the name by which they are officially described.

It appears that for 14 years, down to 1870, things went well. Mr. Bloxam, therefore, could be no novice and no intruder when the indignities of which complaint is made legal. The cadets were paraded and marched into the lecture room in charge of a lieutenant, who remained throughout the lecture to command silence and attention. The Assistant-Inspector, the Inspector of Studies, and sometimes even the Governor would give the sanction of their presence. The students naturally behaved with decency, and tipped their Professor with respect.

But so-called reform was inaugurated. The office of Inspector was abolished; the officer in charge removed; and a circular was issued to the instructors that tact and temper were to replace military discipline, and that the Professors should be answerable for the behaviour of the cadets. The misrule set in, and the cadets, all countenance of notice, having been withdrawn, did exactly what they now was the lecturer able to do his subject justice interrupted by a shout of laughter caused by the of an obscene joke, or when compelled to leave the middle of a chain of reasoning in order to place in the apertures if in originator of some disturbance.

We ed not enter into the miserable details of these proceedings. By the new arrangements an Board of Visitors was appointed, before which successive years Mr. Bloxam appeared; but, having paid attention of the Board to the inexpediency of cadets to obtain leave of absence without the of the Professor, he never received a further invitation to attend.

Students, as a rule, are not a quiet race, and no one can conceive of them a passing pleasantry, or a reasonable amount of chaff but these cadets went beyond the limits of licence: they drew obscene sketches, and wrote offensive words on the walls of the lecture-table; they damaged the apparatus on the lecture-table, and ruined the specimens; they turned on the gas-taps, and might have blown away the east wing of the Academy; they turned the ride-roce examination into ridicule, and it discontinued; while, for all this, there was neither address or probability of amendment. The Professor had to wash the premises at his own expense, and, at last, barricade his lecture-table—which is precisely what he did. Supposing that the authorities considered Mr. Bloxam to be an incompetent instructor, they surely

might have discovered that fact at an earlier date; and, had they wished him to be replaced, they might have adopted some more dignified manner of carrying out their intention.

The Pharmaceutical Council.

THE usual monthly meeting of the Pharmaceutical Council was held on May 3, 1882, Mr. Greenish, President, in the chair; Mr. G. F. Schacht, Vice-President. All the other members were present except Mr. Savage.

The annual report of the Council, for presentation to the general meeting on May 17, was discussed in committee and agreed upon.

After the election of members, &c., the name of Edwin Atkins, 7 Beaumont Square, Beaumont Street, E., was restored to the register on payment of a fine of one guinea.

The Finance Committee submitted their report, which was adopted.

THE BENEVOLENT FUND.

The Committee recommended two grants, one of 10*l.* and another of 15*l.* The report was adopted.

Mr. ROBBINS (Treasurer) said there was a large balance in connection both with the Benevolent Fund and with the General Fund. Knowing that the Council did not approve of buying Consols above par, he would move that 2,000*l.* should be placed on deposit on the General Fund account, and 500*l.* on the Benevolent Fund. He at the same time pointed out that they would still lose 1 per cent. on the money by not investing it.

Mr. HAMPSON wished to know whether this matter had been considered by the Finance Committee.

Dr. SYMES said he had no objection to the proposal as regarded the 2,000*l.* balance on the General Fund account, and if the 500*l.* which it was proposed to deposit in connection with the Benevolent Fund was merely placed there until it was wanted, he should have no objection to that; but if it was to be funded in any way he should object very strongly. He understood that the money had been asked for on the ground that it was urgently needed, and would be used at once for the purposes of persons applying from time to time. He should be sorry that they should create an impression that they had more money than was at present needed.

The PRESIDENT, in reply to Mr. Hampson, said the Treasurer's proposal came from the Committee.

The SECRETARY intimated that the money was needed, and was simply to be placed or deposited for use as required. He reminded the Council that there were six unsuccessful candidates at the last election.

The Treasurer's proposal was adopted.

THE LIBRARY, MUSEUM, LABORATORY, AND HOUSE.

This report gave the usual details of addition to the library and museum. The Committee reported that they had asked the Secretary to furnish them with returns showing the number of students who had attended the lectures and laboratory during the session of 1879-80, and the number of those who had passed the Minor and Major examinations.

THE SOLICITOR'S REPORT.

Submitted by the General Purposes Committee, showed that a penalty had been recovered from W. Day, 152 High Street, Southampton, an unregistered person, trading as the "Southampton Drug Company," and that Jacob Humphries, Hill Top, Low Moor, Bradford, Yorks, had paid a penalty and costs. Other cases were in hand.

THE PROPOSED BILL FOR REGULATING THE SALE OF POISONS.

The Council then went into committee to consider a report of a deputation which recently waited on the Home Secretary in reference to the sale of poisons.

After considering the report of the deputation it was resolved that the correspondence preceding it and the report should be published. By a letter from the Home Office on March 21 the Home Secretary invited suggestions from the

Council for the amendment of the law relating to the sale of poisons. The Council having taken the subject into consideration, the President wrote on April 5, suggesting the following :—

1. Further restrictions on the sale of medicine containing poisons dispensed from ordinary prescriptions are *not* necessary and not practicable.

2. The sale by *wholesale* of certain virulent poisons, e.g., strichnine, aconitine, and all poisonous vegetable alkaloids and their salts, might with advantage be placed under greater restrictions.

3. The sale of proprietary and so called patent medicine containing poisons should be placed under the same restrictions as the sale of other medicines containing poisons.

The amendment of other sections of the existing Acts (Pharmacy Acts, 1868 and 1869) seems also desirable, and in reference to these, as well as to suggestions 1, 2, and 3, I may state that I shall be happy to attend personally with one or two of my colleagues at any time convenient and explain more fully the views of the Council of this Society if the Secretary of State should desire further information.

The Home Secretary then expressed his thanks to the Council, and asked the deputation to meet him at the House of Commons on Friday, April 21, after question time. The deputation, consisting of the President and Vice-President and Messrs. Bottle, Carteighe, and Hampson, and accompanied by Mr. Barker (of the firm of Savory & Moore) and Mr. P. Squire (those houses having been also asked for suggestions by the Home Secretary), waited on Sir W. Harcourt, as appointed, and after explaining their views to him suggested that they should formulate them in a memorandum, to which Sir W. Harcourt readily assented. The memorandum was as follows :—

*Suggestions for the Amendment of the Law Relating to the Sale of Poisons
(Pharmacy Acts, 1868 and 1869).*

1. Misapprehension having arisen respecting orders written by medical practitioners for poisonous drugs, to be used by themselves, it is desirable that the sale by *wholesale* of certain virulent poisons, e.g., strichnine, aconitine, and all poisonous vegetable alkaloids and their salts, as well as the other poisons in Part 1 of Schedule A to the Pharmacy Act, 1868, should be placed under greater restrictions. That is to say, the seller by wholesale should be required on every such sale to record in writing the name of the article, the quantity sold, the name and address of the purchaser, and the date of the sale. Such documents to be preserved by the vendor for at least 12 months.

2. Now that more potent and seductive preparations are sold in the form of, and under the protection accorded to, *patent medicines*, it is desirable to provide greater safeguards to the public respecting them. With this object the sale of patent medicines containing poisons should be placed under restrictions, as is the sale of other medicines containing poisons.

This might be accomplished by repealing so much of Section 16 of the Pharmacy Act, 1868, as allows patent medicines to be sold without restriction, and enacting that all such medicines containing poisons shall be labelled by the maker with some such notice, as "This preparation contains poison, and must be used with care."

In the case of such medicines being imported from any foreign country for sale in the United Kingdom the onus of so labelling should rest with the importers.

3. Having due regard to the safety of the public in the matter of the proper qualification of persons to whom is entrusted the duty of selling, dispensing, or compounding poisons, it is desirable to enforce a certain course of technical education and training prior to the qualifying examination of those who are to be registered as qualified to sell and dispense poisons and poisonous medicines, and more effectually to prevent the sale and dispensing of poisons by persons not so educated and trained, and consequently not registered.

4. It is unnecessary and impracticable to further restrict the sale, by *retail*, of poisons, or the sale of medicines containing poisons, dispensed from ordinary prescriptions.

SALE OF POISONS BY AUCTION.

Mr. BUTT moved that the Secretary should prepare for publication a memorandum of the proceedings taken by the Council to prevent the sale by auction in Holloway of a large quantity of poisons. It appeared that at the auction in question a quantity of poisons, the stock of a co-operative society which had failed, was to have been offered for sale in lots, but in consequence of the action of the Council these lots were withdrawn.

The next business was to consider a letter received from the Privy Council, and to draft a reply thereto.

Mr. WILLIAMS moved that the matter should be considered in committee.

Mr. WOOLLEY and Mr. HAMPSON opposed this course

being taken, but on a division after some discussion they alone voted for discussion in open Council.

The matter was accordingly discussed in committee, and on the open meeting of the Council being resumed it was moved by Mr. CARTEIGHE, seconded by Mr. YOUNG, that the letter which had been decided upon in committee should be forwarded to Mr. Peel, at the Privy Council Office, and that a copy of it should be entered on the minutes of the Council. The motion was carried by 10 votes against 1, Mr. Schacht being the only opponent.

Mr. RADLEY moved—

That the President of the Council be requested to push in the "Society's Journal and Transactions" so much of the proceedings of the General Purposes Committee as he may deem desirable.

He said that there were many subjects mentioned in the report of the Committee which were of great interest to the trade, and which ought to be made public. He had sometimes heard it said that the Council had very little to do, and that it did not take any interest in the business of the trade. As some discretion was required in the matter, he proposed to leave the President to decide what portion of the minutes ought to be published.

The motion having been seconded by Mr. GOSTLING,

Mr. ANDREWS said he doubted whether it was quite right to throw such responsibility upon the President.

Mr. WILLIAMS supported the motion, and said he had several times during the past six years made a similar proposition, but had always failed to carry it.

The PRESIDENT thought they might safely leave it in the hands of the President and Secretary to make a few useful notes from the minutes, so that they might show their constituents the large amount of work which the Council did, which at present was heard nothing of.

The motion was agreed to.

The report of the examiners for England and Wales for April showed that of 24 Major candidates 8 passed and 16 failed, and that of 132 Minor candidates 56 passed and 76 failed.

Pharmaceutical Society of Ireland.

THE monthly meeting of the Council was held on May 3, Dr. C. R. C. Tichborne in the chair.

After reading the minutes a smart discussion took place, in consequence of Mr. Pring and Dr. Whitla, who had not been present at the previous meeting, warmly protesting against the decision of the Council in reference to the reception of the certificate of Mr. Carscadden. The President, who had not been present at the previous meeting, said that they objected to the minutes as incorrect. Mr. Payne said the minutes were correct, but incomplete. He desired that the report of the Committee on which the Council had acted should appear on the minutes. Ultimately the minutes were signed, and Dr. Whitla intimated that he should take notice of a motion to question the legality of the Council in reference to the certificate in question.

Mr. FENNELL mentioned that Dr. Whitla had presented to the society a copy of his recently-published work on "Pharmacy and Materia Medica." A vote of thanks was passed to Dr. Whitla, the President remarking that this work was one of the cleverest that had appeared on those subjects for a long time.

A letter was read from Mr. H. A. Macaulay, Coleraine, announcing that in the appeal case of Mr. W. J. Baxter, heard on April 17, the previous conviction was quashed, the Recorder reduced the fine from £5 to £1, costs, as he considered the case one of first impression. He had given a careful judgment, a verbatim report of which had been taken, and would be furnished to the Council.

PRESIDENT : What does the Recorder mean by "case of first impression"?

Mr. FENNELL : The Recorder thought that the Act was not very well known in the provinces. That, I think, is what he meant.

PRESIDENT : It seems extraordinary that although we have succeeded the amount of the fine should have been reduced on an appeal from an offending party, and no compensation allowed. We can do nothing; but perhaps Mr. Payne can tell us something about it.

PAYNE said that in accordance with the directions of Council he was present at the hearing of the appeal. The judgment of the Recorder appeared to be very satisfactory; but a magistrate who sat on the Bench with the Recorder, and who had heard the case originally, gave the Recorder to understand that the magistrates were under the impression that £1 was the only penalty they could inflict, and that they inflicted it in order to enable Mr. Baxter to appeal. Therefore the Recorder said he would reduce it to £1. The solicitor for the Society applied for costs; but the Recorder said that as the Act was quite new, and not well known throughout the country, he thought the ends of the Council would be gained by having the conviction recorded without costs. He (Mr. Payne) would request the Council in future not to ask him to act as public prosecutor.

PRESIDENT said the Council were under a load of obligation to Mr. Payne. No doubt the position in which they had placed him was an invidious one. They trusted, however, that he would always help them with his advice.

M PAYNE said he should have no objection whatever to share with the other members of the Council in the responsibility of such proceedings.

The Registrar read a correspondence between Messrs. Boyd & Goodwin, of 6 Merrion Row, Dublin, and himself, in reference to the position of that firm. On April 19 Mr. Fenlon wrote to that firm, the qualified proprietor of which had died, asking by whom the business was conducted, it having been stated that the representative of the late Mr. Goodwin had no interest in the business, and that the surviving partner held no qualification. A similar communication addressed to Mr. John R. Elliott, L.P.S.I., who is managing the business of the late Mr. Savage, of the Alcove Hall, No. 4 Mall, Waterford, asking particulars as to the present proprietors of that establishment. The reply from Messrs. Boyd & Goodwin, dated April 24, stated that their business was carried on by the surviving partner under the supervision of a duly-qualified pharmaceutical chemist. Mr. Elliott's reply, dated April 27, stated that he was not proprietor, but was managing the Alcove Hall, Waterford, for the present proprietor, Mr. Avag.

Mr. Unker read a report from the Law Committee in reference to the two cases mentioned and another. It stated reference to the case of Messrs. Boyd & Goodwin that, as the surviving partner was unqualified, the compound of prescriptions by that firm was illegal, and recommended that a letter should be addressed to that firm, commanding them to discontinue the compounding. It was decided that a similar letter should be addressed to oilerian Boyd, of Bride Street, there being reason to believe that the practice of dispensing was carried on by him. The Committee were of opinion that the letter respecting the establishment of the late Mr. H. J. Elliott did not give sufficient information.

Dr. INTGOMERY: We ought to show a most decided aversion against any evasion of the law. Six months are allowed firms to make proper arrangements after the qualified members, and, if that be not done, we ought to allow any feelings to interfere, but should be the law is, and tell the parties that it must be

commeadations of the Law Committee were

PRESIDENT: My notice of motion comes next,

that Dr. Roscoe's "Experimental Chemistry" (Part 1) be substituted for Roscoe's "Chemistry" (Science Primers) in the Preliminary examinations.

Mr. Reyds was a member of our Council, and is a chemist whom I feel proud. He has written a book which is of the same character, and to some extent the same as Roscoe's "Chemistry." It fulfils exactly the same function as Roscoe's "Chemistry," and is in my opinion a better book. His city which is quite up to the mark for our ought to give it the preference, and be true to small matters as well as in more important before move the resolution.

Mr. PAYNE: I second the resolution with great pleasure.

Mr. PRING: I agree with you that the adoption of Dr. Roscoe's book is a step in the right direction, and that

when we have so good a book published in this country we should adopt it. At the same time I think the resolution should not take effect until January 1 next, so that men who are preparing under the present regulations will not be interfered with.

PRESIDENT: The examiner could take whatever book the candidate has prepared himself in for the present. At the same time Mr. Payne's suggestion is a very proper one.

It was accordingly resolved that Dr. Reynolds' "Experimental Chemistry" should be adopted from January 1 next.

Mr. PRING asked had not some members of the Council been appointed to attend the examinations, and had they given in any report?

PRESIDENT: I do not think they were to give a written report unless they thought it necessary to do so.

Mr. PAYNE said a Committee of the Council was appointed to attend the examinations, but they were not summoned for the first examination, which was held last January, and consequently did not attend. He (Mr. Payne) and Mr. Allen were selected to attend the April examination, and did so. They remained during the whole examination. It was not part of the instructions to the Committee to furnish a written report unless they saw something in the examination which they considered not up to the standard.

The PRESIDENT remarked that any small matter that attracted the notice of the Committee could be dealt with by a verbal communication to the examiners. If there was anything important a notice of motion should be given in the Council about it, but it was not desirable to interfere with the examiners if it could possibly be avoided.

Some routine business having been disposed of, the Council adjourned.

Metropolitan Reports.

FIRE.—On April 9 a fire seriously damaged the building occupied by Mr. J. Whatman, chemist, 230A Kentish-town Road.

ROBBERY AT MR. RIMMEL'S.—At the Clerkenwell Police Station, on April 13, John Manley, warehouseman, was charged with stealing scent, soap, and other articles from his employer, Mr. Eugene Rimmel, of the Strand; and Frederick Gardiner, commercial traveller, Islington, and William Ward, builder, Hammersmith, were charged with feloniously receiving the same, well knowing them to have been stolen. Mr. Barstow sentenced Manley to six months' hard labour, and Gardiner and Ward to six weeks' hard labour each.

BREACHES OF THE FACTORY ACT.—William Hearn, mineral-water manufacturer, of 23 Piercefield Street, Kentish Town, was summoned at the Marylebone Police Court on May 8, for unlawfully employing in his factory a youth named Charles Taylor after two o'clock in the afternoon of Saturday, April 8, contrary to the provisions of the Factory Act. The lad was wiring lemonade-bottles when the inspector visited the works, and the defendant practically admitted the offence.—Mr. de Rutzen inflicted a penalty of 40s., with 4s. costs.

SOUTH LONDON SCHOOL OF PHARMACY.—The prizes awarded at the examinations held on April 4, 5, 13, and 15 were presented to the following successful competitors on the 25th ult.:—Medals: Chemistry, Mr. Forster; Botany, Mr. Woollons; Materia Medica, Mr. Burton; Pharmacy and Practical Dispensing, Mr. Kirkbeck. Certificates: Chemistry, Mr. Woollons; Botany, Mr. Forster; Materia Medica, Mr. Dillon; Pharmacy and Practical Dispensing, Mr. Burton. Extra Certificates of Merit were awarded to Messrs. Hornby, Roberts, Davies, Heald, Reade, Oldershaw, Brunton, Naylor, Capper, Wright, Tucker, Taylor, and Mills.

DANGEROUS COSMETICS.—A respectably-dressed young woman, whose face was very much disfigured, applied for advice at the Thames Police Court on April 12. She stated that she had had a slight rash upon her face, and, wishing to get rid of it, she went to a local chemist, who prescribed a lotion, which he made up and charged her half-a-crown for. She used this for several days, the result being that her face

gradually got into its present state. She next went to a properly qualified medical man, and he informed her that her face was poisoned, this having been undoubtedly caused by the lotion she had been applying. The magistrate told the applicant that he was very sorry, but he could not help her. She had better bring an action against the chemist, and she would doubtless get damages.

NARROW ESCAPE OF A CHEMIST.—Sir John Humphreys resumed an inquiry at Stepney on April 17 respecting the death of Charles Kay, aged ten years. The mother of the deceased now stated that on March 25 the deceased went to Victoria Park, and on his return he said he had fallen over a stone and hurt his thigh. On the 27th he complained of feeling unwell, and witness went to a Mrs. Rogers, the wife of a chemist in the neighbourhood, described the symptoms, and obtained from her a half-bottle of "mixture," for which she paid 2d. This mixture seemed to do him no good, and on the 29th the boy became delirious. Witness afterwards called in Dr. Riley, who prescribed for the deceased, and gave witness a lotion to rub him with. The boy, however, got rapidly worse, and died on the 30th. Dr. Riley stated that after that evidence he had no hesitation in saying that death arose from natural causes, and a verdict to that effect was accordingly returned.

A DISPENSING ACCIDENT.—On April 8 an inquest was held at Wandsworth on the body of Miss Annie Hall, a lady whose death had occurred under lamentable circumstances. Her brother, Colonel Hall, gave evidence that on the morning of March 24 the deceased was seized with violent sickness. He sent for Dr. Hooper, who attended her until her death on April 4. The vomiting seemed to have resulted from a dose of medicine which the deceased had taken. Dr. Hooper went to Mr. Bell, chemist, Bank Buildings, Wandsworth, and was there shown a bottle containing some of the fluid which had been used in making up the medicine. This fluid Dr. Hooper found was acid nitrate of mercury, and the lady died from its effects. The medicine prescribed for her was a tonic. She was a weakly woman, but not unhealthy. Mr. Matthew Whitelock Bell, chemist, of 9 Bank Buildings, Wandsworth, deposed that on March 24 last, about ten in the morning, Colonel Hall brought him a bottle of medicine which he said had been prepared by witness's assistant on the day previous, and of which a dose had made the deceased very sick. Witness said he would make up a bottle according to the prescription himself. He did so, and tasted both mixtures, and Colonel Hall had scarcely gone out of the door before witness was very sick, when he began to think there must be something wrong with the preparations or with the drugs themselves. He tasted the contents of one of the bottles of drugs and found it was a strong acid solution, which proved to be acid nitrate of mercury. He subsequently went to Messrs. Hearon, Squire & Co., of 5 Coleman Street, City, from whom he had purchased the preparation, taking the bottle with him which was labelled, "Per Nitrate of Iron." He saw Mr. Squire, who at once pronounced its contents to be a solution of mercury. Witness then informed Mr. Squire that he had it from their firm on July 1 last. Mr. Squire called the assistant, who he thought had put the bottle up, and asked him how he could have made such a stupid mistake. He said it was so long ago that he could not remember anything about it. Henry Giles, assistant to Mr. Bell, deposed to making up the prescription. He was the first to open the bottle labelled "Per Nitrate of Iron." The jury returned a verdict of "Death from misadventure," and censured the wholesale druggist, but exonerated Mr. Bell and his assistant from all blame in the matter. The representative of Messrs. Hearon & Squire stated that in the course of their business, which had extended over a number of years, such a mistake as this had never occurred, and every precaution was taken to prevent such errors arising.

LICENSING ACTS IN AUSTRALIA.—The Sydney correspondent of the "Australian Supplement" to THE CHEMIST AND DRUGGIST relates an amusing incident that occurred lately before the Licensing Board. A publican was charged with opening his house for the sale of liquor during prohibited hours. The plea was that the customer (a woman) merely came for a dose of castor oil. The Bench, however, ruled that the publican should not sell that or any other beverage in a jug on Sundays.

Provincial Reports.

BIRKENHEAD.

TESTING THE ANALYSTS.—The Birkenhead Council having been defeated in a case under the Sale of Food and Drugs Act, in which their own analyst (Dr. Vacher) had reported a sample of coffee to be adulterated with 27 per cent. of chicory, while Somerset House declared the sample to be pure, referred the matter to a committee. The committee, apparently at the suggestion of Dr. Vacher, had some samples of chicory and coffee mixed in known proportions, and submitted them for analysis to several chemists, with the following result:—

Percentage of Chicory actually mixed with the Samples of Coffee forwarded	A	B	C
	10 per Cent. Chicory	30 per Cent. Chicory	4 per Cent. Chicory
E. W. T. Jones, Wolverhampton ..	7 p.c. chicory	31 p.c. chicory	p.c. chicory
A. Smeatham, Liverpool ..	7 p.c. chicory	32 p.c. chicory	p.c. chicory
Somerset House ..	2½ p.c. not more chicory	35 p.c., not less, chicory	p.c. not less, chicory
Dr. Davies, Liverpool ..	5 to 10 p.c. chory	25 p.c. chicory	p.c. chicory
Dr. Carter Bell, Manchester ..	10 p.c. upwards of chicory	30 p.c. upwards of chicory	p.c. upwards of chicory
Dr. Dupré, London ..	16 p.c. chicory	35 p.c. chicory	p.c. chicory
Dr. Vacher ..	Genuine	31 p.c. chicory	p.c. chicory

On the above result the Committee made a recommendation to the Council that in future analyses for the borough under the Sale of Food and Drugs Act. The Council, after a lively discussion, agreed to the recommendation.

EDINBURGH.

FISHERIES EXHIBITION AT EDINBURGH.—A highly successful exhibition of articles relating to the fishing industry has been held in Edinburgh during the past month. We extract the following notice relating to the cod-liver oil exhibit from the *Scotsman*:—John Bruce, junior, Shetland, sends a sample which, although noticed by the judges, so approved itself to a large deal in the South that he at once bought up the whole quantity that the exhibitor could offer for sale. At Eyemouth makers, but only two are here represented—Thomas Cormack & Sons and James Crawford. The supply of this fishing station has necessarily been greatly affected by the loss of so many boats last year. One exhibitor in the class are Carr & Son, Berwick-on-Tweed, who show oil of different degrees of purity. Clarified state the oil is used in several industries, including that of the candlemaker; and it appears that whole of the oleaginous matter is extracted from these are dried and ground and a liquid made from them, which is, however, not much in request in country, though small farmers about Berwick-on-Tweed keep some cattle. Samples of haddock oil are exhibited by Messrs. Carr. This oil, which is of a darker colour than the live oil, is also used for medicinal purposes. It is, however, mostly bought by curriers, who find it a suitable oil for leather. Messrs. Carr have been fortunate in receiving a gold medal for their collection. Mackenzie & Co., Edinburgh, who have made cod-liver oil a speciality, show samples of Norwegian manufactured bottles of their compound emulsion—a preparation of the oil, being mixed with pepsine and hypophosphite of lime. The oil is rendered more pleasant to the palate. The wise submit, in their "aromatic cod-liver oil," a new method of preserving the oil from becoming rancid, and it is for use in warm climates. A sample 25-gal. cask and Oil is shown by James Graham, Glasgow; Gran. Southall Brothers & Barclay, Birmingham; Aberdeen; and George D. Moffat, Edinburgh. A. M. Leighton, a local manufacturer, whose oil has been mentioned a for many years. There are four Norwegian exhibitors.

made said, generally, that, in the opinion of competent judges, a better display of oil has never been seen in any exhibition. Some dissatisfaction has been expressed by certain exhibitors that an analytical chemist was not included in the list of judges; it being contended that only by chemical test can the value of the oil for medicinal purposes be satisfactorily demonstrated.

HOLBEACH

AHOCKING DEATH.—At the Holbeach Union, Lincolnshire a young man named Ringham was placed in a dissecting apparatus to cure a skin disease, sulphur being burnt under the box. The deceased complained of the heat, and said he should die if not taken out. Two persons who were in the room represented his condition to the master, who is said, refused to take him out, and left the room. When he returned the man was insensible, and apparently dead. He lingered, however, until April 19, when he died. At the inquest, held on April 22, it was stated that too much sulphur was put into the box, and that the heated irons applied to the sulphur were too large, causing the flame to reach the bottom of the box in which the deceased stood. The medical officer of the Union stated that Ringham had died from the effects of the burns. A verdict of manslaughter was returned against the master of the house.

LIVERPOOL

A DENTAL DEATH.—On May 6, a porter named Yore, in employ of Mr. Johnson, chemist, Church Street, was sent to the loft for some sacks. When returning he fell through the folding-doors in the loft to the warehouse floor, his head, a distance of about 8 feet. He was taken up unconscious, and died while being removed to the Northern Hospital.

NOTTINGHAM

THE NOTTINGHAM AND NOTTS CHEMISTS' ASSOCIATION.—
The honorary secretary of the above has given notice of
motion to propose an alteration in the bye-laws in order
that the Association may become a trade and protective, as
well as an educational, body. It is also proposed that an
annual subscription shall be given from the funds to the
Birmingham Trade Association.

ROCHDALE

FATAL EXPLOSION OF CHEMICALS.—A fatal explosion occurred on April 19 in the premises of Mr. William Riley, dyer, Castleton, near Rochdale. Mr. Riley occupies the lower rooms of the premises, and on the morning in question, about eleven o'clock, he and his son Charles, aged about 4, were engaged rolling a barrel of iron liquor along the floor of the building. The end of the barrel was pushed against a wall, one of the hoops was knocked off, and coming in violent contact with some potash which was lying close by, a terrible explosion occurred. The whole of the back walls and the gable end walls were blown down, and father and son were buried in the ruins. The lad managed to extricate himself, and Mr. Riley was released from his painful position by a crowd of people whom the noise, which is described as being thunder-like, had attracted to the spot. Both were fearfully burned, and were at once conveyed home, and medical assistance was at once procured. A child, playing near the building, was partly covered with brick and its head was crushed. It only lived a few minutes. Mr. Riley died on May 1, and his son lies in a precarious state. Another account states that the cask they were rolling contained chlorate of potash; it slipped from their control and dashed against the wall, the explosion following immediately. Neither explanation is intelligible, as chlorate unmixed cannot explode. The accident will be investigated by the Home Office. The inquest has been adjourned till May 24.

THE MICROSCOPE, AND SOME OF ITS RECENT REVELATIONS.

A Paper read before the Nottingham and Notts Chemists' Association, February 23, 1882.

BY JOHN ROGERS, F.R.M.S.

A QUESTION which every microscopist has to answer many times is, What does a microscope cost? The best answer is, perhaps, that an ordinary instrument costs from 10*s.* to 10*l.*, and a superior instrument from 100*l.* to 400*l.* There are two items of considerable expense—the stand and the object-glasses. The stand may include mechanical work of a costly kind. The best stand, alone, by Ross, Powell & Lealand, or Beck, will range from 35*l.* to 45*l.*, while the American Folles-Blackman stand is 63*l.* A set of 14 object-glasses, from 4 inches to $\frac{1}{50}$ inch, by the same makers, may come to nearly 130*l.*, and a set of 14, by Folles, 4 inches to $\frac{1}{25}$ inch, will be about 215*l.*, while the highest power made by Spencer or Gundlach are 50 guineas each. There are microscopists distinguished for their attainments and discoveries whose instrument and apparatus would not exceed 10*l.* in value, while others use an outfit that could not be purchased for less than 500*l.* More depends upon the knowledge and skill of the person who uses the instrument than upon its cost, and the fact remains that the greatest discoveries have been made with instruments of comparatively small price. The great Leeuwenhoek made every part of the instruments he used with his own hands, and they contained only a single lens each. The illustrious Lieberkühn, also, made his own instruments. The microscopes of both these celebrated men can be seen in the collection of the Royal Society and the Museum of the Royal College of Surgeons, and, except as a curiosity, they are all of small money value. The great discoveries of Ehrenberg, in the present generation, were all made with a modern microscope that would not cost 5*l.* On the other hand, a century ago, a microscope of wonderfully fine workmanship, worth 100*l.*, was made for King George III., yet neither the King, nor anyone else, has done work of any value with that instrument. Early in the present century two object-glasses were made with lenses of diamond, of immense cost, yet with these no discoveries were made that have lived to the present day.

Another question constantly asked is, "What is the power of this instrument? How many times does it magnify? And the questioner's admiration is usually in proportion to the number of figures contained in the answer. This folly has been played upon to a large extent by the charlatans who make cheap magnifying glasses, and advertise them as "Microscopes that will reveal monsters in a drop of water; show the human skin to be covered with hairs, like a forest of pine-trees; and under which parasites are seen walking about on a leaf like cows in a pasture." A most absurd statement on the face of it! No microscopist answers the question in this form. A cubical magnification of 1,000,000 times is an enlargement of 10,000 in superficial area, and is precisely the same thing as 100 diameters. Magnifying-power is always spoken of, by those who know anything about it, by the number of diameters. As a general rule, it may be understood that object-glasses which give, with the A, or 2-inch ocular, the following amplifications (represented by the actual focus of a single lens) are classified under their nominal focus, as:—

Low powers, 10 to 75 diameters, 5 in. to	$\frac{3}{4}$ in.	objective
Medium powers, 100 to 250	$\frac{1}{2}$	"
High powers, 300 to 1000	$\frac{1}{4}$	"
Very high powers, 1250 to 4000	$\frac{1}{8}$	"

Very high powers, 1,250 to 4,000 " 25 60 "

It is a common error to make the value of a microscope depend exclusively upon how much it will magnify. The most worthless instrument may magnify highly, but magnifying-power alone is of small value, for more can be seen with a good instrument and a power of 100 diameters than with a poor one of 500: the important point is what will a microscope show. This will depend partly upon the objective, but also quite as much upon the observer. An uneducated and untrained eye will see little of what is before it, and will only partially understand that little. For instance,

the entire field visible with 1,000 diameters is $\frac{1}{150}$ inch across, and occupies a space ordinarily invisible to the naked eye; it requires skilful manipulation to place an object within so small a field at all. With 750 diameters it is impossible to see the whole of the foot of a fly; you might see a single claw or a single pad, but without some knowledge of the structure of a fly's foot, as a whole, no clear ideas could be obtained with such high powers. This is one reason why high powers cannot be shown with any advantage to general observers.

Another reason why low powers only are of use to untrained eyes is, that the depth perspective decreases very rapidly, and beyond 1,000 diameters the microscopic image of solid objects passes more and more into pure transverse sections, and any appreciable depth of focus ceases; at the same time the magnification of the depth seen increases in inverse proportion to the diminished diameter. As you approach 1,000 diameters difficulties commence with regard to the light, and lamps, prisms, or condensers of the best construction become necessary, and require to be used with great skill. At this point, also, specially-prepared objects, to lie accurately in the same plane, are absolutely needed, and glass covers, $\frac{1}{200}$ inch thick, become difficult to work; glass of extreme tenuity, of $\frac{8}{100}$ inch, and the thinnest films of talc become useful with water immersion, then glycerine, oil, and lastly homogeneous fluids of the same refractive angle as the densest glass, with immersion condensers to correspond. Working on this line 10,000 or 15,000 diameters may be reached, with a loss at every step. It is claimed that modern amplifiers will bring this up to 32,500, but it is not easy to see, and sunlight is necessary to see anything; while even 100,000 has been spoken of as possible, but it is doubted if, even with the electric light, anything whatever can be revealed with such excessive amplification.

In the opinion of the most accomplished manipulators there is a line beyond which nothing is gained by higher amplification. Amici and Sir John Herschel considered this limit to be 3,000 diameters. Hartnack has never shown anything better than at 3,000 diameters. Nobert's 19th hand was first resolved with 550 diameters, and Dr. Woodward, of Waslington, photographed it with 2,000 diameters; while, with every resource of modern apparatus, he is content with 3,000 as the limit of the best results with the best objectives in the world. The Rev. W. H. Dallinger states his best results as under 4,000 diameters, and the opinion of the greatest living microscopists familiar with the highest powers is that beyond 5,000 or 6,000 diameters there is no further visible resolving-power, but that 3,000 or 4,000 will amply represent the practical limit. The highest-power objective ever made, the $\frac{1}{80}$ inch, was exhibited some ten years ago by the most celebrated maker of very high powers, and, although those present were all microscopists, not more than four out of five could see anything with it. The amplification was about 6,000 diameters, and a single mark upon a scale of the podura filled the entire field; it was a familiar object to all, but the observers were by no means unanimous as to what they saw.

A very popular question is, Will the microscope show the animalcules in water? Many of the animalcules in stagnant water can be seen by the naked eye, without the aid of any instrument, and others can only be seen with exceptional instruments. Pure spring and rain water, so far from being devoid of animal and vegetable life, in its best condition often contains rotifers, infusoria, entomostriata, diatoms, desmids, and algae, which to the microscopist attest by their characters the purity of its source and general good quality. These are invisible to the naked eye; some may be seen with a low power, but most will require a high power to render them visible. So that seeing animalcules in water is no definite test for a microscope. Powers of 15 to 20 diameters will show objects that are otherwise perfectly invisible; while 50 diameters will bring to view the most beautiful objects described in ordinary books. Leeuwenhoek made all his discoveries with powers from 40 to 160 diameters. All that can be seen by the higher powers is intelligible only to the specialist or the student of some branch of science, and the objects themselves, having no common names, are known only to scientific men.

The wise question may be asked: What will the microscope show that would otherwise be unknown? The answer

to this question is already very large, and it grows every day. It is only possible now to state some of the latest additions to our knowledge from this source.

For the detection of forgery there is no expert equal to the microscope. The examination of handwriting with a view to determine its authorship, its genuineness, age, and whether or not it has been altered from its original form and intent, is one of the most recent uses of this instrument, and one the importance of which has but recently become known, and is even now not generally realised. In a recent case a microscopist established the date of a document by recognising in the paper fibres only recently used in paper-making, which demonstrate that the paper was manufactured at a later date than that claimed by the writing upon it. Writing can scarcely be changed, after its original execution, so adroitly but that the microscope can detect the falsification. The face of the paper, when once marred by disturbing the position of the fibres, can never be restored, and hence scratching and erasure can be recognised, though performed with consummate skill. Inks, alike to the unaided eye, are marked under the lenses by conspicuous differences of shade, colour, or density. Lines which look simple and honest may show themselves as re-touched, or altered, by the same or by a different hand, or pen, or ink; and lines drawn upon new paper look different from those drawn after it is old. The microscope will give valuable information as to the relative age of superimposed, crossing, or touching lines, and state positively whether lines were written before or after related erasures, or scratchings, or foldings, or crumplings of the paper. If the signature has been constructed by tracing it with pencil lines over an original, and subsequently inking it with a pen, particles of plumbago can be somewhere detected. Copied or imitated originally in ink, the distribution of ink is peculiar and suggestive, indicating hesitation from uncertainty, or pauses to look at a copy, or to recall a style, or to decide on a future course, just at points where a person writing his own name would pass over the pen most rapidly and promptly.

There is no form of forgery so difficult to detect; that of the most cunning free-hand imitations done with practised skill: yet for this there is a test, which is entirely ad alio within the province of the microscope. A genuine signature is automatic: no close attention of the will is required, and there is a minute rhythm caused by the action of the small muscles, in regulating the amount of pressure upon the pen; it is quite imperceptible to the naked eye, and cannot be accurately determined by a simple magnifier. These variations of pressure differ with individuals from 200 to 300 to the inch, and are as regular as they are spontaneous and involuntary. When a man writes naturally the pressure variations are rhythmical, while, on the contrary, when he is consciously imitating the writing of another, they are irregular and unsymmetrical. A matter of microscopic analysis the hand always trembles and must do while the heart beats and the nerve-impulses follow each other in rapid succession. In health this rhythm progresses is perfect and regular, but its regularity is broken by mental excitement and destroyed by voluntary effort. No forgery is impossible without one or both of these interfering agents.

There is another subject, far removed from us, upon which new light has been recently brought by the microscope. That there are other worlds than this we know from the revelations of the telescope, and that some of these have an atmosphere and clouds; but those we can observe best are so far from the sun that we know nothing of the possible conditions of life in those distant worlds, so full of interest to the astronomer and the poet. There are, however, at frequent intervals meteors which visit us from outer space, and becoming incandescent in their rapid flight through our atmosphere, are visible; not infrequently they are caught by the attraction of the earth and fall. The chemical analysis of these stones shows that of the 70 more elements known to exist, 22 have been found and recognised, and no element has yet been found in meteorites with which we are not familiar. Quartz and felspar, so common here, are absent, while the metals, with the minerals associated with them, constantly occur. A microscopic examination of sections of meteorites reveals evidence of organic life, both animal and vegetable. At present, corals and sponges, with about 50 species of polypes, crinoids, and algae, have been

fed; in all, 130 different forms and structures have been photographed by Dr. Hahn. These celestial fossils tell us of a planet on which aquatic life was sufficiently developed to produce them, and to preserve them after death, by a process of infiltration of siliceous material, which dissolved the lime of which their structure must have consisted, so far as their inorganic constituents are concerned, and supplied it by various kinds of siliceous materials, filling up all the interstices and openings which had formerly contained organic substance. This planet, therefore, must have had a comparatively long period of existence; it must have had an atmosphere, and its surface must, in whole or in part, have been covered by water. The corals would seem to show that this was a warm sea of a sunny climate, for we find corals on the earth at the temperature of 80° F. The most marked feature about these fossils is their diminutive size; the spicula of sponges being so small that they are indistinguishable by the naked eye. We have here a revelation of a world beyond the confines of our world, brought to our knowledge from outer space by the microscope.

I descend from *Cosmos* to the counter. One of the plagues of modern civilisation is, that adulteration has been reduced to an art—neither food nor medicine is safe from its insidious cunning; and here the microscope provides a salutary check. In dealing with roots, the transverse and longitudinal sections, especially when their structure is differentiated by double staining, will give in minute detail clear evidence of identity. With leaves, the hairs upon the stigmas and the stomata afford ample means to distinguish with positive accuracy. While with decoctions and tinctures the micro-spectroscopic method, carefully studied, will discern the minutest differences of composition. With all salts the polariscope and the goniometer will classify perfectly those that otherwise may be most difficult to distinguish. And even with substances reduced to powder, the microscopic examination will generally be sufficient to detect the introduction of a foreign or alien substance.

The article of food, adulteration has long had a very extensive and lucrative field. For the last 20 years a patent has been diligently worked in London by which animal fat has been cleaned and purified to a tasteless, odourless, colourless substance, which is then coloured and flavoured to represent butter. Being exposed to a fair degree of heat in the process, the result was not objectionable as a matter of fact so much as of fact and sentiment. Our cousins across the Atlantic have not been so fortunate; the oleomargarine which is largely manufactured for their use, and possibly for ours—for, in fact, a few cases have already appeared in the imports—is known to be made from refuse animal fats, in no part of the process subjected to a higher heat than 120° F. This, coupled with the result of a recent microscopic examination, suggests a grave danger.

In outward appearance, oleomargarine would be accepted by the ordinary purchaser as genuine butter. Under the microscope crystals of sodium chloride were present, not so clearly characteristic as those found in dairy butter—but here all resemblance ended: crystals of sodium nitrate were prominent with another form, closely resembling cholesterol, found in considerable numbers; besides these crystallized fatty globules, totally different from pure dairy butter and suspicious cells were abundant, accompanied by shred and tissue fibre in patches, many in a broken-down condition, with elementary fibres detached, and a form strongly suggestive of encysted hydatids, thus forming a medium for the introduction of entozoa and ectozoa of the most dangerous class. A thorough microscopic investigation of oleomargarine is impending in the United States, where manufacturers of this article are in operation on the most extensive scale. An adulteration of the same class is imposed into this country from Germany and France, under the name of butterine. In appearance and taste it will pass for butter, but, as it is certainly made from animal fat, its difference from oleomargarine is merely a matter of quality, or possibly of name only, and the substance well deserves attention at the hands of the analyst and microscopist.

For analysis the microscope is invaluable; it makes possible a series of examinations with the most minute quantity of material. Take, for instance, a suspected blood stain from which the $\frac{1}{25000}$ part of a grain can be scraped with a knife; place this on a glass slip, with a microscopic dot of glycerine, to give a solution of haemoglobin, with

100 diameters and the micro-spectroscope the spectra of blood may be observed and modified, for confirmation, by a mere dot of solution of sulphuret of sodium; by moving the stage the coloured fluid will be partly drained away, and, if the specimen be blood, with 1,200 diameters and an eyepiece micrometer the corpuscles may be measured accurately enough to discriminate between human blood and that of an ox, pig, horse, or sheep; and lastly, the minute blood-stain may be wiped off the glass slide on to a slip of moistened white blotting-paper; drop upon it fresh tincture of guaiacum, and then a drop of ozonised ether, which will at once strike the dark-blue colour of the guaiacum test for blood. In this way may be obtained three kinds of evidence:—

Spectrum analysis;

Microscopic measurement; and

Chemical reaction from a single particle which weighed less than $\frac{1}{25000}$ th part of a grain.

The micro-analysis of poisons has been ably treated, with regard to chemical reaction, in several important works; but when the quantity is very minute or much diffused the microscope furnishes a remarkably delicate test of the presence of poisons when they are in too minute quantities to answer any chemical test, especially those poisonous alkaloids for which no chemical test is known. Take a drop of water containing infusoria, place it upon a glass slide, and examine carefully, noting their size, form, and colour. Then place a drop of the suspected solution at the edge of the fluid containing the infusoria. If organic poisons be present, the infusoria are instantly destroyed, and become a formless sediment. Professor Rossbach, of Vienna, states that: "If a drop of water containing infusoria and weighing the 1001 of a grain be used, the quantity of strychnine required to cause remarkable changes will be 000,000,06 of a grain. In this way the $\frac{1}{250000000}$ th part of a grain of atropine can be detected." Thus, if the stomach of a person poisoned by strychnine contain a litre of fluid and only $\frac{1}{4}$ of a grain of the alkaloid, a single drop of this fluid will contain 40 times as much strychnine as is necessary for the test.

In this paper an endeavour has been made to answer some of those questions which occur whenever a microscope is shown, and to bring forward a few of the latest additions to our knowledge from its use. The microscope is now recognised to be indispensable to the physician and the surgeon. The age of ignorance, in which it was regarded as an instrument belonging to magic rather than to science, is past, and the period of half-knowledge which persisted in regarding it as a curiosity or a toy is passing away, and there can be little doubt that in the future some familiarity with its use will be absolutely necessary for the chemist, for whom it will verify facts and act as a protection from those frauds and adulterations which are never more mischievous and dangerous than when introduced into the chemicals and drugs for whose genuineness and purity the chemists and druggists of to-day have such an honourable reputation, that the lives of others are constantly confided to their knowledge and skill with absolute confidence and perfect safety.

COMPARATIVE TESTS OF PHENOL, CRESOL, AND CREASOL.

By W. H. HARDY, Clinton, Iowa.

THIS paper, which has been sent to us by the author, was read at the third annual assembly of the Iowa State Pharmaceutical Association, held at Des Moines, Iowa, February 14 and 15, 1882, and, we believe, has not been previously published:—

How many pharmacists are there doing business in this State to-day that could recognise the difference between carbolic acid, cresolic acid, and creasote, and how many are there that, presuming them competent so to do, would take the trouble to apply the chemical test?

It was during a conversation with a gentleman who has long been recognised as a prominent pharmacist among us, that the above questions were put to the writer, and it was, while left meditating upon their comparative analogy, that

the idea of making some chemical researches of the hydrocarbons named was conceived, the outgrowth of which will be found in the appended table, and, because of its compactness, it is to be hoped may prove of general utility as a ready reference for the chemical manipulator.

Tests innumerable are given in the various works which have been consulted largely in the selection of the following, but in compiling this article, which is simply the notes of laboratory work, the chief aim has been to bring forward only the most distinctive and characteristic tests, and as the reagents used as well as the carbolic acid, cresylic acid, and creasote experimented upon, were as nearly pure as were obtainable, the cresylic acid having been distilled from the crude phenol expressly for the occasion, the writer is enabled to verify the authenticity of the tests, since they are the result of precision in personal manipulations.

As in commerce, the pharmacist understands full well the difficulty with which a pure article of creasote is obtained, the article usually being an admixture of, if not wholly, carbolic acid; and as each—carbolic acid, cresylic acid, and creasote—are members of a homologous series (*i.e.* a series the members of which differ only through the atomic equivalent of the same element), and as their similarity in chemical reactions with numerous re-agents in many instances is so great as to lead the unpractical to a possible confusion of results, the comparative ease with which one can be placed upon the market, substituted for the other, and sold without detection, is readily comprehended; a brief *résumé* of their physical appearance may be pertinent.

(*a to l.*) Phenol was discovered by Runge, who ascribed to it the name carbolic acid; and it has been demonstrated by Laurent that to quite an extent it plays the part of an alcohol, resembling the monatomic alcohols in many essentials, yet differing from them through its acid properties, by which it obtains its name, phenic acid. Phenol is produced from dead oil, coal-tar.

Cresol, or cresylic acid, is a compound which exists with phenol in the coal-tar creasote, and may be obtained by fractional distillation. There are three cresols; two solid, one liquid. They may be produced artificially by treating toluol with hydriocyanate (H_2SO_4); but in this reaction several isomeric sulpho-conjugated acids are formed, which, when decomposed with potassic hydrate, yield cresols differing largely.

Creasote was discovered by Reichenbach, and is a product of wood-tar. It is more abundant in the heavy oil beech tar obtained from wood-vinegar products. It is separated and prepared by a series of processes similar to those in the preparation of phenylie acid from coal-tar.

Phenylie acid is a solid, and forms in colourless, needle-like crystals, fusing at $35^{\circ}3^{\circ}$ C., forming an oily liquid of great refractive and dispersive powers, and has a peculiar characteristic odour, an acrid, burning taste, and marked antiseptic properties. It is neutral to test-paper, and is soluble in from 18 to 20 parts water, and in all proportions in alcohol, chloroform, ether, naphtha, and carbon bisulphide. It has a specific gravity of 1.065, and does not disturb a ray of polarised light.

Cresylic acid is a colourless, limpid liquid, and like phenylie acid is neutral to test paper, soluble in naphtha, chloroform, ether, alcohol, and carbon disulphide, boils at 203° (a higher temperature than phenylie acid), and is soluble in 34 parts of water. It reacts with phosphorus pentachloride, potassium, sulphuric, and nitric acids, in like manner to phenol.

Creasote is a colourless, limpid, somewhat viscid and oleaginous liquid, having even stronger refractive and dispersive powers than carbolic or cresylic acids, and a peculiar, penetrating, smoky odour, with pungent, insupportable taste. It has a specific gravity of 1.037, and its boiling point is 205° ; it readily dries up at 100° . Unlike phenol it turns a ray of polarized light to the right, and is but slightly soluble, one part being soluble in 90 parts water. Since creasote commands a higher market valuation than carbolic acid, it is reasonable to suppose the article placed upon the market and sold as creasote, if an admixture would contain carbolic acid, and not vice versa.

(*l*) Collodion produces with phenol a gelatinous coagulum of gun cotton, as it does with cresylic acid, which disappears on the addition of creasote; while the nitro-cellulose from

collodion is not precipitated by creasote, which mixes readily with the ethereal solution.

(*m*) Albumen coagulates with phenol and cresol but not with creasote.

(*n*) Glycerine of specific gravity 1.23 is miscible in all proportions with phenol; equal measures of the reagent and acid are not precipitated by three measures of water, while if 20 per cent. of cresol be added, two measures of water will produce a precipitate. Glycerine is miscible in all proportions with cresol, and equal volumes of the reagent and acid are precipitated by one volume of water creasote being insoluble in glycerine of the specific gravity 1.23.

(*o*) One volume phenol, cresol, or creasol, diluted with 100 volumes of water, by the addition of one drop ferric chloride yields with phenol a permanent purple colouration; with cresol like results are obtained; while with creasote a bluish-green, thin brownish-yellow colouration, which gradually fades, is produced.

(*p*) One volume phenol, cresol, or creasol, diluted with about 100 volumes alcohol, on the addition of ferric chloride, yields with phenol a greenish-yellow; an dirty brown colouration; with cresol nearly identical results are obtained; while with creasote a pretty green colouration is produced.

(*q*) To a solution of phenol diluted with water add a few drops of a solution of molybdic acid and concentrated sulphuric acid, in the proportion of one part molybdic acid to ten parts sulphuric acid, and a yellowish-brown colour is produced, which is rapidly transformed into a purple colour. This test is greatly facilitated by temperature not exceeding 50° C. On cresylic acid the reaction is not unlike that of phenol, while with creasote the same solution produces a brownish-yellow colouration. As this delicate reaction is entirely due to the deoxygenation of molybdic acid, numerous substances conflict with the test.

(*r*) A shaving of wood moistened in phenol, then dipped in hydrochloric chloride, yields, when dry, a blue colour; with cresol, a deep green; and with creasote, a greenish-blue colour is produced.

(*s*) Phenol is wholly soluble in equal measures ammonia hydrate, and the solution is not precipitated less than 2 measures of water. Cresol is but slightly soluble (1 volume to 18 of reagent); these require 12 volumes of water to precipitate, when a crystalline scaly precipitate is formed. Creasote is practically insoluble in 1 volume of 75% ammonia hydrate.

(*t u*) Phenol, cresol, and creasol are soluble in both potassium and sodium hydrates, potassium forming with phenol, according to Flarianz, potassium phenate C_6H_5KO , crystallizing in needle-like prisms: with cresol, potassium cresate; and with creasole potassium creasolate $C_6H_5KO_2 + 2H_2O$, which crystallizes in brilliant pearly scales. This is however, obtained with great difficulty.

(*v*) Phenol mixed with equal quantity, by weight, of sulphuric acid; if to a small quantity of this liquid, a drop of diluted nitric acid is added, a beautiful magenta colour is produced, which is changed to green by addition of alkali and again to magenta by excess of sulphuric acid. This is a very delicate test; but, as the reactions are similar, it is of little importance in distinguishing phenol from cresol or creasole.

(*x y*) If an aqueous solution of phenol be washed with ammonia and solution of sodium hypochlorite a permanent deep blue colouration is produced, which is transformed into a red solution by addition of acids. Cresylic acid produces a blue colouration, which, upon addition of acid, is changed to red, while with creasote a light blue-green colour is produced, which is changed to brown by acid.

(*z*) This is perhaps one of the most delicate tests for phenol and cresol, but requires great care to distinguish the reactions. With phenol, a crystalline precipitate is produced of tribromophenol, $C_6H_3Br_3O$. Cresol and creasole react in like manner to phenol; the difference, however, is that trichlorocresol is liquid at ordinary temperature, whereas tribromophenol is a solid.

(*g*) With phenol, nitric acid forms $C_6H_5OH - HNO_2 = C_6H_2(OH)NO_2 + 3H_2O$, trinitrophenol or picric acid, which deposits in crystalline plates, while cresol forms trinitrocresol, or trinitrocresylic acid, $C_6H_5(OH)_2NO_2$, yellow, needle-like crystal, resembling picric acid. Creasote forms a somewhat analogous compound.

Synonyms	Phenic acid Phenyl-hydrate Phenol Carbolic acid	Ensylic phenol Ensylic-hydrate Cresol Cresylic acid	Creasol Creasote
Formula	C ₆ H ₅ O	C ₇ H ₆ O	C ₈ H ₁₀ O ₂
Physical Appearance	Colourless needle-like crystals	Colourless limpid liquid	Limpid, viscid, and oleaginous liquid
Odour	Slight smoky	Smoky	Decidedly smoky
Taste	Neutral	Neutral	Neutral
Pointed Light	Undisturbed	Slight rotation	Rotates to right
Specific Gravity	1.065	1.057	1.037
Solubility in H ₂ O	1 volume in 18	1 volume in 34	1 volume in 90
Melting-point	35.3° C.	—	—
Cooking-point	—	—	Not congealed by cold produced by HCl and Na ₂ O ₂
Boiling-point	180° C.	201° C.	205°, dries up at 10°
Collagen	Produces coagulum	Coagulates	Not coagulated
Allien	Coagulates	Coagulates	Not coagulated
Glycine, of spec. grav. 1.23	Soluble in all proportions; equal volumes reagent and acid are not precipitated by three volumes water	Soluble in all proportions; equal volumes reagent and acid are entirely precipitated by equal volumes of water	Insoluble
Ferric chloride to aqueous solution	Permanent purple colour	Purple colour	Blue-green, then brownish yellow
Ferric chloride to alcohol solution	Greenish yellow, then brown colour	Brown colour	Green colour
Molybdate to concentrated H ₂ S	Permanent purple tint	Purple	Brownish yellow
Anhydride	Blue	Deep green	Greenish blue
Sodium hydrate	Wholly soluble in equal measures. Not precipitated by less than two measures of H ₂ O	Practically insoluble 1 to 18. Requires 12 volumes H ₂ O, and forms crystalline precipitate	Nearly insoluble, 1 to 75
Sodic hydrate	Soluble	Soluble	Soluble
Sulphate, with traces of nitre	Magenta	Crimson	Pink
Mercuric nitrate	Blood-red colour	Deep-red colour	Amber to blood-red colour
Amm. hypochlorite	Deep navy-blue colour	Blue colour	Light bottle-green colour
Amm. hypochlorite acid	Red colour	Red colour	Brown colour
Bromine to water solution	Flocculent crystalline precipitate	Precipitated	Crystalline mass
Nitric acid	Yellow colour	Yellow colour	Yellow colour

GENERAL HINTS TO THE DISPENSER.*

AS quickness and despatch are generally considerations in pharmacy, it is advisable to keep some of the more frequently-prescribed salts in solution; and a few hints as to the most convenient strengths of these solutions may not be out of place here. Bicarbonate of potash, 1 oz. (troy), dissolved in enough distilled water to measure 4 oz., makes a very suitable stock solution, as $\frac{1}{2}$ oz. of it contains 1 drachm, or 60 grs., of the salt. Chlorate of potash, 1 in 24, made in the same way, is the best strength to suit all variations of temperature. The salt is soluble in a smaller quantity of water, but is apt to crystallise with changes of temperature. Epsom salts, 1 in 2; bromide of potassium, 1 in 3; and chloral hydrate, 1 in 1, make very convenient solutions, the latter particularly so, as each minim represents 1 grain of chloral, and it is stable and easily calculated.

Some of the official pill masses become very hard on keeping, and get so brittle as to be unmanageable; they may, with great advantage, be kept in the dry state, the powdered ingredients being mixed together, so that the menstruum ordered by the Pharmacopœia to give consistence may be added at the time of dispensing. In this way pil. colocy. co., pil. aloes barb., and socot., pil. aloes et ferri, and pil. Plummeri may be kept with the required proportions of the requisite menstruum marked on the bottles in which they are contained. This plan is often a great help if the physician happens to order too soft a mass.

Mistura ferri co. can also be kept in a concentrated form, so that every drachm will contain the constituents of an ounce of the mixture, except the sulphate of iron, which is to be weighed out and added the last thing before dispensing. Mist. creta can be easily kept in powder, ready for the addition of cinnamon water.

The use of concentrated infusions and decoctions, so often employed by pharmacists, is to be condemned. These preparations should be always made fresh as required. It cannot be too strongly impressed upon the student's mind that substitution should never be practised.

Often the dispenser will be at a loss to understand the meaning of the prescriber, when he orders some preparations out of their official names, and he then must have a consultation, or fall back upon the experience of himself or others. A few examples may be given:—When magnes. calc. is ordered, magnesia B.P. should be used; when magnes. carb., the heavy preparation is usually intended; when bismuth. or bismuth. alb. is prescribed, the subnitrate is the preparation generally in the mind of the physician; when aqua menth. is ordered, aq. menth. pip. should not be used, but aq. menth. sativ. is the intention of the prescriber.

Liq. morphie is very often written in a prescription, and the dispenser will do well to always employ liq. morph. mur. When extract. aloes is written, the rule should be to use the siccotine.

Much confusion unfortunately exists in the memory of some prescribers about the mercurial chlorides, and fatal consequences have resulted. The subchloride is often written hyd. chlor., hyd. mur., hyd. submur., and the per-chloride is occasionally prescribed as hyd. chlor., or hyd. bichlor.

If the dispenser find it impossible to consult the physician in such cases, he will not regret giving the subchloride, if more than $\frac{1}{4}$ grain is ordered in each dose.

When the physician orders salts, like pot. iod., or roots, like gentian, with directions for their solution or infusion by the patient himself, the dispenser should destroy their identity by the pestle, before sending them out. Quinine, for the same reason, if ordered in a mixture without a solvent, should be carefully triturated till the crystals are broken up.

When the pharmacist gets a prescription where incompatible substances are ordered it is clearly his duty to compound it, unless absolutely incompatible, in which case the different ingredients will not mix, and then, if possible, he should consult the prescriber. Instances of such might be given to fill a large volume, and, unfortunately, no rule can be laid down for the guidance of the young dispenser,

as it is still an open question with pharmaceutical authorities whether a compounding is justified in altering a prescription, suppose he finds the emulsifier or excipient ordered by a medical man unsuitable. Much will depend upon his knowledge of, and his relations to, the prescriber; but, where a consultation is impracticable, the dispenser must rely upon his past experience.

Perhaps the greatest difficulty will be met with in the case of pills. A commonly-ordered pill is one containing 2½ grs. of sulphate of iron, and 2½ grs. carbona of potash. Any liquid added to this would promote decomposition, and experience proves that a little vaseline and coco butter make an excellent excipient. Iodide of potassium is often ordered in pills, and may be made up by rubbing the salt with a few drops of water into a stiff smooth paste, and working it into a good mass by the addition of a lie liquorice powder; in this way 6 grs. may be easily got into a fair-sized pill. The proportions of water and liquorice are not given, as they entirely depend upon the sample of iodide which vary considerably in their suitability for making pills.

Phosphorus is occasionally ordered to be made into a pill secundum artem, that is, in whatever way the prescriber thinks best. It should be dissolved in bisulphite of carbon, and, whilst solution is being effected, 2 or 3 drops of chloroform may be added, which produce a heavy vapor around the solution, and prevent oxidation of the phosphorus by the atmospheric oxygen. A lie liquorice powder may now be added, and the mass quickly made into a workable form with tragacanth paste, divided into pills and coated.

Carbolic acid (Calvert's pure crystalline) may be easily made into pills with wheaten flour, in the proportion of 1½ grs. flour to 2 grs. of acid.

Permanganate of potash can be made in pills with cacao butter.

Camphor, after being powdered with a few drops of spirit, makes a nice mass with tragacanth paste. Three grs. of powdered acetate of potash may be made in a suitable pill with Canada balsam, and will remain stable.

Powdered pill or extract of colocynth, may be easily worked into a mass with a few drops of decoction of aloes.

Croton chloral should not be treated with the tragacanth paste, which dissolves it, and causes the pill to flatten. It is best worked up with a little comfit of honey and thick mucilage.

Sulphide of calcium, now much ordered for acne, should be mixed with an equal quantity of sugar of milk, and, after careful trituration, as much powdered decorticated liquorice root added as will make the weight up to 12 grs. of powder in more. The mass can now be easily worked up with a little tragacanth paste. Sugar of milk makes the best powder to aid the subdivision of an active substance, and the glass makes powdered decorticated root of liquorice is the best ingredient for making up pill masses, as it is fine and easily palatable that it does not make a crumbly pill.

Citrato of iron and quinine makes a good pill with tragacanth paste, but it will not remain hard deliquescent.

Copaiba can be made into firm pills which keep their shape within a year, by adding a very small quantity of carbonate of magnesia to it. Powdered rhubarb makes a good mass thence, its weight of glycerine. Gallic acid 5 grs. $\frac{1}{2}$ drop, make a good pill. Four parts of quinine and one of tartaric acid, with q.s. of tragacanth paste make a very excellent mass.

Chlorate of potash and hypophosphite of together, explode, and may cause injury to the

Creasote, if ordered with oxide of silver explode unless the oxide be first diluted by some inert powder like liquorice or gentian, the creasote.

Borax, powdered and rubbed up with mucilaginous powder like moist sugar, which cannot be dissolved by the addition of any further quantity of acetate of lead, similarly treated, makes an opaque white jelly.

Spirit of nitre will generally require to be neutralised with bicarbonate of potash, before being combined with bromide or iodide of potassium, otherwise it will be liberated, and the mixture darkened.

* From Dr. Whitla's "Elements of Pharmacy, Materia Medica, and Therapeutics."

Substrate of bismuth is often ordered in a mixture with carbonate of soda, and unless very great care is taken in adding them, by permitting decomposition at a gentle heat, carbon dioxide will be produced, and the bottle will burst. This may be prevented by using an equivalent amount of the carbonate of bismuth.

When emulsions are ordered in a prescription, with the emulsifying agent left to the discretion of the dispenser, he will get some hints in Chapter III, or he may refer to Merritt's valuable contribution in the "Year-book of Pharmacy," 1880.

Pessaries and suppositories, containing green extracts, may be readily made by first rubbing the extract with powdered castile soap to about one-fifth part of the bulk of the pessary or suppository, and supplying the remainder of the basis with coecine, when the mass can be worked like a pill in a mortar, and shaped by the fingers into moulds previously dusted with powdered

Chlorhydrate can be made into a suppository by melting it on a water-bath in cacao butter, in which it is

In addition, it may be mentioned that where a prescription

In conclusion, it may be mentioned that where a prescription is repeatedly compounded, the patient often asks for the

use to be increased, or some other change to be made, and
the disposer is warned not to accede to such a request, no

it is now simple it may appear, without a consultation with the prescriber; nor is it advisable for him to inform

scriptor, nor is it advisable for him to inform the patient (even when pressed) of the ingredients in any prescription. He can refer them to the physician or do as

writ has done long ago, when it was impossible to
rid a population of it in full. In time, the entire

need hardly be mentioned that in the case of repetitions

medicines of all kinds they should invariably be dispensed in fresh bottles or vessels, and have new labels attached in

each this law is certain to soon get the dispenser into

each this law is certain to soon get the dispenser into
repnt

CLINICAL THERMOMETERS

CLINICAL THERMOMETERS.

R. SCIBB in his *Ephemeris* (No. 2) gives some useful suggestions on the selection and application of clinical

CLINICAL THERMOMETERS.

R. S^C IBB in his *Ephemeris* (No. 2) gives some useful suggestions on the selection and application of clinical thermometers. It appears that a good many cheap but unreliable instruments are sold in the United States. Inaccuracy may arise from imperfect tubes, a low degree of skill, or the use of incorrect standards in making the thermometer. There is also an important source of error not so well known, namely, the contraction of the glass of which the bulb is made. Glass undergoes a process of contraction after having been melted, the contraction continuing six years or more, but only appreciable for the first three or four years, so that a thermometer graduated as soon as it is made though made with proper care and skill, and graduated correctly from a good standard, will have its mercury column pushed up so that the readings from it will all be too high, and this error will increase through many years. A thermometer graduated within a year or two and a half or even if it be made well, in three years or so, read about a degree too high.

nical thermometer bought by a physician should
nied by a certificate stating when and where it
ed. For many years, and until 1880, the only
ers having these certificates were compared at the
ratory at Kew Gardens, London, and the certifi-
parison with their standards were supplied by
bservatory at a shilling each. These certificates
great advantage to the English clinical thermo-
which they were sold; but the great demand
ermometers caused the English makers to send
unseasoned, though certified, and thus the certifi-
uch of its utility, and often accidentally came to
misleading. About 1880, however, the Winchester
bservatory of Yale College, at New Haven, Conn., esta-
lished a thermometric bureau, where thermometers can be
pared or 50c. The amount of error being thus known it
n be allowed for.

In selecting a clinical thermometer several important points are entirely within reach of the physician who selects

First, the index or register being shaken well down, the bulb is taken between the thumb and finger, and the ascending column of mercury carefully observed. If it rises very slowly the glass of the bulb is too thick, or the tube too large. If it rises very rapidly indeed, the glass of the bulb is too thin and the thermometer will be easily broken. The defect from thinness of glass is comparatively rare, while thermometers in which it is too thick are very common. A good thermometer placed under the tongue should show its maximum indication within the tenth of a degree in about six to eight minutes. If they require longer time they are unfit for clinical uses, as they tire patients and waste too much time.

The next point in the selection is to see that a register shakes down easy enough without moving too easily. This will depend a good deal upon the method used by each individual. If the method used by thermometer-makers be used, it will with much ease get any register down, and that without much risk of losing it, but some skill and practice is needed in acquiring this method, and it is not susceptible of being clearly explained. They hold the thermometer rather loosely by the extreme upper end, and then give it a quick flirt or sling outward from them somewhat as if cracking a whip, the arm representing the whip-handle, and the thermometer the whip-lash. If the register moves down too easily it will be liable to be lost by causing it to coalesce with the body of mercury below it; and if lost, the thermometer, as a rule, is hopelessly spoiled. Physicians, as a rule, are dissatisfied with instruments which do not shake down easily, and this is the reason for so many lost registers. Registers are often, if not generally, lost at the first or second shaking down, by supposing they are hard to shake down when they are not, or by using some bad method of shaking. Hence a new thermometer should be shaken down with great care until the observer knows how much force is required.

A great improvement has been made of late years by Hicks, of London, for reading these thermometers. Hicks holds a patent for making the stem of such a form that he gets the magnifying effect of a lens upon the column of mercury when the instrument is properly held. Such instruments he calls "Lens-front Thermometers." In selecting one of these, care is necessary to see that the line of graduation is so placed as to be well seen by the magnifying front. In some of Hicks' instruments when the column is brought under the graduations it is only seen edgewise, and without being magnified. For the reading that is necessary to very careful and clear observations a 5-inch or a 6-inch clinical thermometer is much the best length, because it gives a much more open graduation. But 4-inch is the length generally preferred, because better adapted to the pocket. Thus, probably, nine-tenths of all that are sold are 4-inch. A 3-inch instrument is made by some makers, but the graduation is too close to be read with a useful degree of accuracy.

Finally, in selecting, the bulb should be slowly and carefully warmed by holding it near some source of heat until the mercury has slowly risen to within one or two degrees' length of the top of the capillary tube, the highest point reached being carefully noticed. If the tube above the mercury contains much air the register will be pushed down by it as the instrument cools. Such an instrument is not trustworthy. As a rule a clinical thermometer should not be bought without a certificate of either Yale or Kew Observatory, and care should be taken that the number on the certificate has not been altered, and that it agrees with the number of the thermometer with which it is sold. An excellent practice for any physician is to buy a good thermometer with a certificate of as old a date as he can get, and put it away for a period of three years from the date of the certificate. Then send it for a new certificate, keeping it afterwards as a standard by which to ascertain the errors of those which must be bought from time to time as they are broken in use. Such a thermometer is very valuable, and should be used.

and may do excellent duty among neighbouring physic ans.
In the application of the clinical thermometer, if the physician has a safe slow instrument and wants to save time, he has only to call for a glass of tepid water, and, having assured himself that it is not above blood heat, to stir the thermometer and lower part of the stem round in the water for half a minute to one minute, and when he

sees that it has nearly reached the normal temperature, transfer it quickly from the water to the patient's mouth. A thermometer which requires eight minutes to reach its maximum indication under the tongue will reach the same point in less than half the time in a glass of water of the same temperature as the mouth, because the surface contact is so much more rapidly changed in the case of the water. This use of water has another advantage of so much importance that it should be uniformly adopted. The cleanliness of it addresses itself at once to the sensibilities of patients, for few patients can help mentally wondering whose mouth that thermometer has last been in. There can be no doubt that the anus is slightly the best place for the thermometer in observations of temperature. Yet, except in cases of young children, and in very exceptional conditions in adults, the inconveniences far overbalance the slight advantages, and the mouth is generally accepted as the best place. The axilla has one or two disadvantages that are perhaps rarely thought of. In dry and harsh conditions of the cuticle, not rare in cases requiring frequent observations by the thermometer, the cuticle becomes so bad a conductor that even by waiting a very long time the thermometer gives an indication much below that of the mouth at the same time. Besides, when a thermometer is placed in the axilla, some pressure of the arm is needed to keep it in place, and this pressure diminishes the cutaneous circulation in the parts in contact with the instrument, and this in time lessens the temperature so that the thermometer indication is liable to be too low.

AMERICAN PHARMACY.

NEW YORK, April 28.

THE pharmacists of our land are anxiously looking for some information as to the new Pharmacopoeia, as to who is to publish it, and when it is to appear; yet I think no trust is betrayed if I communicate to you, even in advance of any (as yet) published information here, that the Committee of Revision have awarded the contract to Messrs. William Wood & Co., of this city. The manuscript has been handed over to them, and before this reaches you, it is likely that the proof-sheets of the early pages will be in the hands of the Committee for correction.

It is not unlikely that by the time the British Pharmaceutical Conference meets at Southampton, or the American Pharmaceutical Association gathers at Niagara Falls, the completed volume will be ready for distribution.

From the previous report on the subject which was published a little over two years ago, under the auspices of the last-named organisation, you can judge that the work will be quite different from the Pharmacopoeia we now have; that it will be a great advance in arrangement, exact science, nomenclature, and usefulness, there can be no doubt. That it will awaken much dissatisfaction from the older members of both the medical and pharmaceutical professions is equally true—but that is to be expected in any standard text-book which adapts itself to improved methods and advanced science.

It is somewhat remarkable that the work should have progressed so satisfactorily, and all its details have been so thoroughly canvassed by the 25 members of the Committee of Revision, and that during the two years of its existence, these members should have had but two meetings, both during the first six months of its organisation. Since the Committee was formed at Washington in May, 1880, it has been one of the most industrious and hardworking committees that I have ever heard of, as its results will show, and yet it is all done gratuitously.

The chairman, Charles Rice, Ph.D., is indeed a wonder to those who know him. His ability and genius in things that pertain to pharmacy place him in the fore front of the workers of the world in all that relates to our profession, and it is due mainly to his untiring energy and devotion, that this work is so thoroughly renovated, improved, and speedily ready for the press. While other members of the Committee have distinguished themselves in special departments, and all have done their share well, yet all will concede to him the special honour that is certainly his due.

In educational matters our colleges of pharmacy are doing credit to themselves. During the past sessions about 1,400 students were in attendance, and nearly 350 have graduated as proficient in pharmacy and the collateral branches.

A well-known English pharmacist said to me the other night when at a lecture in our College of Pharmacy, "It would gladden the hearts of Professors Redwood and Bentley if they had such an audience as you have to-night." Why is it that Bloomsbury Square does not have larger classes?

The extension of Pharmaceutical organisations is a sign of promise, and a mark of earnest desire to give or calling a better standing in future. Of the six New England States all have State organisations except Massachusetts, but, by the time this letter reaches your first readers, will have organised one of the largest and most enthusiastic of State associations.

Of the Middle States, all but Delaware have State associations. Of the rest of the Union, there are similar associations in Virginia, West Virginia, North and South Carolina, Georgia, Alabama, Mississippi, Louisiana, Kentucky, Ohio, Illinois, Indiana (about forming), Wisconsin, Iowa, Kansas, and California. Then there are a large number of local organisations confined to cities or counties; so that there is a mighty influence for education and progress which is being developed almost all of which is the growth of the past 10 or 12 years.

State Pharmacy laws, Boards of Pharmacy and the careful system of examination in vogue are exterminating the dispensers of the old style found everywhere a few years ago; and though there are many yet that still practice some simpler vocation, the improvement in material law is certainly remarkable.

A few words relative to the mercantile side of pharmacy may not be amiss. During the past five years more than heretofore, there has been a disposition to compete by means of necessarily giving away a portion of the usual profits of the leading lines of merchandise, and, as a result such competition, both the weaker and the stronger competitors are apparently finding new articles by which to waste their energies, and, if possible, allure their customers. The result has been a loss of the legitimate profit that the dealers should have received, and a consequent dissatisfaction with the returns of their business. This applies to wholesale and retail dealers.

This decrease in business profits has caused the wholesale dealers to look for some method of correcting the evil, and in one direction there appears to be a remedy, which about to be applied. This is the rebate contract system of selling patent medicines. By this plan, whenever the manufacturer binds himself to sell at a certain price per gross a definite quantity (one or five gross) to the dealer, who in turn binds himself not to sell it directly or indirectly, at less than a certain named price, a printed contract to that effect. When the dealer sells with the manufacturer, if he has kept his part of the contract he is entitled to a rebate of 10 per cent., otherwise the manufacturer allows no rebate, and may decline to sell him any more goods. The plan is working well, and the present disposition is for both manufacturers and dealers to enter into this amicable arrangement.

During the past two or three years the competition has been to give the retail dealer his goods too low a margin; the advantage has been to the disadvantage the wholesale dealer's; but this fair solution of this heretofore uncomfortable traffic.

Another item of discomfort in business that felt by manufacturers is the continued tax on manufactures. There is a strong effort being made to modify this tax, in order that our country may have a better field for their products. In view of the wonderful recuperation of our land, it does seem as if the time had come to portions of the burdens of taxation to pay might be lightened. The spirit-tax is probably the most difficult problem to solve equitably, but no doubt that during the next few months some modification will be made in it.

Enough for the present, and at another time you shall hear from

PHARMACY IN AUSTRALIA.

(FROM OUR OWN CORRESPONDENT)

MELBOURNE, VICTORIA, March 13, 1882.

E VETERINARY PROFESSION IN AUSTRALIA

had a publication which is called the "Australian Veterinary Journal, a monthly Journal of Veterinary Science, the Breeding, Feeding, and Management of Stock and Disease." It has reached its third number, and doubt be found of considerable value to the class to which it is addressed; the articles are mostly original, and under the able direction of the editors, Messrs. Graham F.R.C.V.S., and Thomas Chalwin and William T. M.R.C.V.S., it will no doubt continue to prosper.

E PHARMACEUTICAL SOCIETY OF VICTORIA

As on March 8, when the report and balance-sheet for the past year were submitted. The attendance of members was not so large as usual, but this may be accounted for by the fact that there was no contest for the vacancies on the Council. There were five members who retired, four of whom offered themselves for re-election, the fifth seat being filled by the election of Mr. John Ross, Collins Street, who was elected in the place of Mr. Charles Shillinglaw, but before it was adopted a lengthy discussion took place on the action of the Council in removing the School of Pharmacy from the control of Mr. J. Cosmo Newbery, at the Technical Museum. Many speakers thought that this action was unwise, while amongst others it was decided that a school under the immediate supervision of the Society would be far better. The discussion was a very long one and was taken part in by almost every member. Eventually the adoption of the report was moved by Mr. C. Jones, and carried unanimously.

The President of the Society (Mr. William Bowen) then delivered his annual address. After expressing his thanks

for the courtesy and kindness he had experienced from the members of the Society, and from the honorary

Mr. Shillinglaw, whose invaluable services had been rendered by the president of a pleasing character,

Bow said: It is highly gratifying to observe the liberal

and patriotic spirit presented to our museum, and I trust the time is

not far distant when we shall occupy a building suitable

for the reception of the students of our School of Phar-

acy who will have ample provision made for them in a labora-

tory and lecture hall. While upon this subject I may mention

M. Blackett, Mr. Shillinglaw, and myself have

Crown Lands Offices for the purpose of ascertaining

what sites were available for our requirements, the

selection of five or six, but of this number

are especially suitable; and I am able to say that

it is possible, but, if the Council, with the aid of the

members of the Society can bring

them into existence, there is something more than

securing the object of our ambition.

allusion to the interest and advantage accruing

associations as that of the Ballarat Chemists, Mr.

I trust that similar associations will be formed

societies of the Australian colonies and New

South Wales will unite together in conference to promote our

object.

President further alluded to the appointment of a

committee for the purpose of revising the Sale of Poisons

Act, and experienced that some practical results would emanate

from the development of the electric light,

concluded by asking that the same kindly spirit

and experience might be extended to his successor.

After some reference to the discoveries of the

recently-held quarterly examinations under the

act, the examiners have placed on record their

opinion of the very satisfactory examination

of the students, Mr. William Lowe. In their

examination they state that they "fully anticip-

e to meet with this gentleman at some future date in the

highest rank the Pharmacy Board can confer." Mr. Lowe has been awarded the gold medal given by the Pharmaceutical Society for the student who passed the best examination of the year. Mr. Lowe served his apprenticeship with Mr. George Swift (Messrs. Ford & Co.), Melbourne.

I am sorry to find that the present scarcity of

ASSISTANTS

Has had the effect of inducing a number of persons holding no legal certificates of qualification to come to this colony. For legally-qualified assistants of good character, as I have already pointed out, a good opening presents itself, and they can readily obtain employment. The class, however, which is coming in the greatest numbers are those who have passed no examinations, and it therefore becomes necessary for them (if they have been apprenticed and can produce evidence of that fact) to pass a modified examination before they can be registered. Any person desirous of coming to Australia can readily obtain information how the existing laws in the colonies will affect his business, and I would urge all who contemplate coming out to make themselves acquainted with what is required of them. I frequently hear people say "I was not aware when leaving England that there were any laws relating to pharmacy in the colonies."

There are several

COMMISSIONS APPOINTED BY PARLIAMENT

Besides that on the tariff. There is an Education Commission and a Shops' Commission. This last is dealing exhaustively with hours of attendance of employés, and I understand an attempt is to be made to bring those of chemists' assistants under notice. An attempt was recently made at Sandhurst to obtain some of the privileges of the early-closing system, but it failed, owing to the obstinacy of one person who would not close.

I am glad to state that Mr. Alfred Felton, of the well-known firm of Felton, Grimwade & Co., of this city, has recovered from the effects of his late railway accident.

The Melbourne *Argus* of this date devotes a sub-leader to the prospectus of a new company, the Belgium Export Company, a branch of which has been recently established in Melbourne. This company is one of the outcomes of the late Exhibition. Drugs and chemicals will form one of their staples.

THE BALLOON SOCIETY, ACONITE POISONING, AND THE ROYAL AQUARIUM.

THE fashion of being scientific leads to strange combinations, of which the Balloon Society of Great Britain is one of the oddest. It meets, we believe, weekly at the Royal Aquarium, Westminster; the subscription is 5s. a-year. It does not confine itself to balloons, but has revelled in asphalt, tramways, the Channel Tunnel from a strategic point of view, and the occasion of our visit was a lecture by Dr. Ferdinand Springmühl on aconite poisoning. The Society has recently distinguished itself by electing Colonel Burnaby an honorary member. The gloomy room it meets in is duly adorned with diagrams of balloons, a river chart, and a case of photographs of about 30 of the members; some of these have taken the trouble to hang a balloon-car from a convenient hook and group themselves therein. At Dr. Springmühl's lecture the cramped platform held eight or nine gentlemen who looked distinguished, and were, as we learned, Dr. de Lacy Evans, Captain de Carteret Bisson, Dr. Aldred, Colonel Wemys, Dr. Davies, Dr. Bond, Dr. Crastre Webb, Dr. McLagan, Mr. F. Gale, and Mr. W. H. Le Fevre, C.E., president. The audience fluctuated, never numbered more than 60, and contained at first a number of old and young ladies, who stayed till they felt bored. Many of the men looked as if they hardly knew why they were there.

Dr. de Lacy Evans, who was in the chair, read the lecture for the author. It consisted of a reiteration and elaboration of the letters with which Dr. Springmühl favoured the daily papers during the Lamson case. He has known of cases of suicide by aconite. Morson's is far stronger than the German alkaloid, and ought to be distinguished by another name. He has made experiments on himself with Continental aconite, and to a less extent with English. The great difference in strength ought to be known, though the results in the Lamson case would have been the same whichever had

been used. This is the substance, but the lecture would have filled four pages of this journal.

The Chairman, of course, spoke two or three times. He thought the lecture was a very good one, and that there was much truth in it. He was awfully glad it had been read before the Society. He was surprised we did not know more about aconite, as it was well known to the ancients, including Pliny.

Mr. Gale had been 40 years engaged in hearing evidence in committees at the House of Commons. He was present, he said, at the trial of Lamson before the magistrates, and Dr. Stevenson's wonderful evidence was the best he had ever heard. Dr. Tidy had since told him that after hearing it he was so thoroughly convinced by it that he refused to go into the witness box. The Chairman remarked that though the Pharmacopœia orders *Aconitum napellus*, he was of opinion that the nearly inert *A. paniculatum* was often used with the addition of *A. ferox*, the deadly vish of India, to make up the deficiency.

Some other distinguished gentleman remarked that some good had arisen from the Lamson case. Before this, the analyst called in had been the doctor attached to the nearest police-station. Now the Home Secretary had passed a resolution calling upon the Presidents of the Royal College of Surgeons and the Royal College of Physicians to appoint an independent analyst. He hoped that care would be taken to select in each case the most efficient man, for it was well known that some men are well up in one poison and some in another.

During the lecture there was one burst of applause, startling the lecturer and the audience. It proceeded from a gentleman in the back seat, who had apparently just come in. The best part of the fun was at the end, when everyone as he left was presented with a ticket for the next lecture, which admits to all parts of the Aquarium during that particular evening.

PHARMACEUTICAL HINTS.

THE following notes are extracted from the commercial report of the Helfenberg Chemical Factory.

Benzoyated Lard.—Lard impregnated with benzoin comes more and more into favour. An iodide of potassium ointment prepared with this will keep white for a week without the addition of sulphate of soda.

Ammoniacum and Galbanum Depuratum.—These gum resins purified by the wet method are now produced so hard that they can be easily powdered, and are very useful in dispensing pills and emulsions.

Cantharidin manufacture has been simplified so that the product can be lowered in price. One part of cantharidin is equal to 200 parts of cantharides powder, so that the collodion, plaster, and ointment of cantharides can be easily prepared. A good collodium cantharidatum may be prepared from—

	Parts
Colloxylin	20
Ether	40
Spirits of wine	70
Castor oil	10
Cantharidin (dissolved in spirit)	2

Extractum Tamarindorum.—This dissolved in two or three parts of raspberry juice yields a pleasant-tasting, gentle purgative similar to Erba's specialty.

Opodædæc.—Butter-soap has been considered the best for this preparation; but E. Dietereich says that none of the soaps are equal for this purpose to the dialysed stearin soap recommended three years ago. The following formula makes an excellent opodædæc:—

	Parts
Dialysed stearin soap	12
Camphor	8
Spirits of wine	320
Oil of thyme	1
Oil of rosemary	2
Spirits of ammonia	16

Pulvis Secalis Cornuti Excœlati.—Ergot yields to petroleum ether 52 to 53 per cent. of powder free from oil, and 42 to 43 per cent. of fatty oil. If not perfectly freed from oil the powder is more liable to rancidity than if not treated at all.

FAMOUS PHARMACISTS.

CARL WILHELM SCHEEL.

IN the year 1782, just 100 years ago, two scientific amateurs—M. de Virly (a Frenchman) and M'Elluyart (a Spaniard)—made a journey together into Sweden, mainly for the purpose of visiting two chemists who had made for themselves European reputations. The one was Bergman, the other was Scheele. Bergman was the professor of chemistry at Upsala, the university of Sweden, at that time held the undisputed pre-eminence in a noted school of learning. He was then 47 years of age—a most omnivorous student. In his youth he had come under the influence of Linnaeus, who had fascinated him in botanical studies, from which he branched into entomology, and won distinction in both sciences. But these studies, but distractions to him. Mathematics had been his study, while he studied law, and studied it hard, to please his father, who had sent him to Upsala for that purpose. No one knew that he had joined chemistry to his other pursuits until, on the death of Wallerius, Bergman put in a claim for the chair which was thus left vacant. He wrote some treatises for the occasion, which proved to be of value, was bitterly opposed by the chemical section, but was ardently supported by influential friends in the university, and secured the chair, which he held till his death. To his own and to his country's glory, Bergman was omnivorous, too, in another and not quite so creditable a sense. Chemists have detected various curious coincidences between his observations and previous ones of Black, Cavendish, and Priestley, which it is hardly supposed were accidental, while it is generally believed that he cribbed from his dear friend and admirer, Scheele, the credit of at least of discovery, namely that of oxalic acid, which he, Bergman, claimed as his own. Still Bergman did a wonderful amount of genuine and a valuable character; he won the admiration of those who came under his profession, and he was worthy of being lionised by our two friends, Virly and d'Elluyart.

After they had duly worshipped at Bergman's shrine they took a paper by pretty little town of Stockholm, which stands, some 80 or 100 miles from the mouth of the Västerås, a river which flows into the sea at the town of Stockholm, an important manufacturing town, but still making its name, a young-looking man of unimposing appearance, but of fine physique, asked for Herr Scheele. The unimposing-looking young man, who was Scheele, said that was his name. What could he do for him? They sat down to discuss their letter of introduction from Bergman, and the process soon Scheele and his visitors were deep in discussing the science and especially the chemistry of that epoch was of the highest interest. All the chemists in Europe were beginning to search for the facts which were to form the basis of modern chemistry, and which Lavoisier would in a few years make clear by adjusting the focus of the instrument through which they were observed. Scheele was an eminent man; his papers, as a rule, record facts and discoveries, but he had himself contributed largely to making Lavoisier possible. In 1777 he had published his treatise on air and fire. Priestley had anticipated his important discovery there announced, namely, separation of oxygen, though it is universally conceded that Scheele's researches had been quite independent of those of the English chemist. Foreigners spent a few days in Koping, and at their hotel Scheele dined with them each evening, but dinner over he always returned to his laboratory, whether his hosts accompanied him so as to see his work as possible.

At the time of this visit Scheele was 39 years old, and had already done much of the work which was famous in the annals of chemistry for all time. More years only remained to him, but they were to be distinguished as among the most fruitful of his life. At every time he was probably prosecuting his experiments, he

with ussian blue, which led to his discovery of what is still known as Scheele's acid. A little later (in 1781) he published his essay on "A Sweet Principle Obtained from Oils and Animal Fats," which he named "sugar oil" to which Chevreul would later give the name of glycene; and in the same year he announced his discovery of "crystallised citronian acid," since called citric acid. A dozen more papers of less historical importance followed his industry until 1786, the year of his death. Scheele's father was a shopkeeper at Stralsund, at that time a small town of Swedish Pomerania, but German in character, and afterwards became in fact. Carl Wilhelm was the second in a family of eleven children, and was born on October 9, 1742. He went to the public school of the town, and "finished his education," as far as masters and teachers were to help him, at the age of 14. An elder brother had been apprenticed to Mr. Bauch, an apothecary at Gottingen, and had died during his term. Carl had a desire to be a pharmacist, too, and Mr. Bauch took him. His apprenticeship lasted six years, and when it was completed he stayed with his master two more years as assistant. Little scraps of record of this important period of his life have been gathered, but they only show that he worked with ardour, but with that tranquil, untiring patience which characterised all he did through life, and gained a reputation of cheerful seriousness. "Neuman's Chemistry," the leading German treatise on the science, and "Kunkel's Laboratorium," were the books from which young Scheele after life admitted to have acquired his first chemical pursuits.

Leaving Gothenburg, Scheele took a situation at Malmo at a dr. Kalsstroem. There he stayed five years, still filling all his spare time with study and experiment. In 1765 he went to Stockholm, and spent three years in the pharmacy of Mr. Scharenberg, at the sign of the Raven, in the Market-place. It is stated that Mr. Scharenberg felt some little alarm when Scheele might be humble apparatus which he had collected for many studious years, but Scheele's manipulative and conscientious attention to the details of his business rewarded his master, and the serious assistant, whose fortunes had now come, soon became known in the anti-society of the capital. Public and private parties were opened to him, and here Scheele's career as an apothecary began. In 1768 a paper by him had been read to the Swedish Academy of Science, entitled "Chemical Experiments with Sal Acetosellae," which, it is supposed, geste the discovery of oxalic acid. This paper was not noticed, but in 1770 he sent to Bergman a description of a process whereby he had prepared tartaric acid. Bergman turned the manuscript to Scheele without comment, and latter sent his paper to Retzius, who printed it in the transactions of the Academy, and made public allusion to it as a meritorious work. The process invented by Scheele, subsequently led him to the discovery of citric, lactic, and lactic acids was essentially that which has always followed, and consisted in separating the organic acids from chalk, and afterwards freeing them by means of stronger acids.

Scheele wrote an account of experiments on fluorine which for the first time the true nature of this element is described. His experiments were at first complicated by the difficulty of separating the fluorine acid in glass vessels, but afterwards corrected his early misapprehensions, and later defended his conclusions against the attacks of critics—Boulanger and Monet. In 1773 he went to Upsala, where he served a Mr. Loocke. An incident soon occurred which brought him into contact with Bergman. Loocke supplied Bergman's laboratory. One day John Gottlieb Gahn, who was studying chemistry under Bergman, and afterwards became a noted chemist, came in the shop and spoke to him of an interesting fact which he had observed but was not able to explain. He said that when he poured vinegar on ordinary nitre he got no result, but when he heated the nitre in a crucible, the nitre, though apparently unchanged was decomposed with the evolution of red fumes. Gahn was able to explain this fact; so was Bergman, to whom he afterwards spoke about it. Gahn came again to

Mr. Loocke to tell him Bergman's remarks, when he met with young Scheele. The latter said he did not think it was difficult to understand; he supposed that nitric acid, like vitriolic acid, might exist in two conditions, and he judged that the application of heat reduced the nitric from the peroxo to the sub condition; that in the latter case the acid and the alkali had a weaker affinity for each other and were then decomposed by the vinegar. Gahn was struck with this explanation; told it to Bergman, who at once said that the author must have a clear insight into the facts of chemistry, and desired to make Scheele's acquaintance. Scheele was at first rather disinclined to accept Bergman's friendship in consequence of the slight he had received from him when he had sent him his tartaric acid paper. But Bergman was determined to be friendly, and soon he and Scheele were close acquaintances, and remained on terms of close and cordial intimacy until the death of the latter in 1784. "I intend to write his life," wrote Scheele in Crell's "Annalen," "as I would like to make it known that, notwithstanding the interval which separated us both in years and knowledge, he permitted me to be his friend."

At Upsala Scheele's scientific activity developed wonderfully. He sent papers to the Academy of Sciences at Stockholm on benzoic acid, on the black oxide of manganese, on arsenious acid, on the composition of the air, and other subjects. In 1775 he was chosen an associate of the Academy, and was thus recognised as among the first scientific men of the kingdom.

An interesting record has been kept of an event which occurred during Scheele's residence at Upsala. The Duke of Sudermania with Prince Henry of Prussia visited the University, and Scheele, though not a regular student, was appointed to show them some chemical experiments. Possibly his acquaintance with German (for to the end of his days Scheele was always most familiar with that language) may have been one of the reasons for selecting him, but it is certain that the authorities had perfect confidence also in his manipulative skill.

In the year 1775 Scheele had an opportunity of taking the management of a pharmacy at Kopings. The proprietor, a Mr. Pohl, or Popler, had died, and the concession belonged to his widow. But it fell to the Medical College to appoint a *provvisor*, and Scheele without much difficulty qualified himself for the position by passing the necessary examination. Bergman would gladly have kept him at Upsala, and offered to get him an appointment as manager of some Government works. But Scheele had no desire to relinquish his occupation, and resolved to go to Kopings. Perhaps he had seen the young widow. However this might be, he seems to have soon after decided, in his quiet, patient manner, to try to win her as well as to manage her business. As proprietress of an apothecary in Sweden, where the concession is of considerable value, she was supposed to be rich, but Scheele soon found that the business was encumbered with debts. He made it a matter of honour to restore the business to solvency in the first place. This was a work of years. In 1777 the Royal College of Medicine sent him his diploma as an apothecary, and as a special mark of honour dispensed with either fees or oath. He then purchased the concession from Madame Pohl, though she still shared the house with him. His scientific investigations were always steadily prosecuted; neither love, nor business, nor society, nor delicate health could hinder him in these. He was highly esteemed in the little town where he lived, for, when the concession of the pharmacy was to be sold, and a stranger proposed to buy it, the townspeople declared they would have no other apothecary, and that if Scheele were turned out of this one they would build him another apothecary in the town in order to retain him. He prospered and built for himself a handsome house, and himself gilded the stone lion which was the sign over his shop, and, as might be expected, he did the gilding so well that it is said it has not needed renewal to this day.

He had become himself the proprietor of the pharmacy, and now, with creditable pride, he was able to offer to the lady that very position which he had at first thought of asking her to bestow. But his health was breaking. Some say that his long series of experiments with poisonous bodies had injured his constitution, and that his persistence in working in a cold laboratory brought on attacks of rheumatism.

In 1786 his years of reward, if not of rest, might have seemed to have commenced. He had gained a competent fortune, the love and respect of his neighbours and of his scientific fellow-countrymen, and an honourable reputation all over Europe. The scientific academies of Berlin, Erfurt, and Sardinia, and the Royal Society of Medicine of Paris had enrolled his name among their honorary members. It is said—but there seems to be no sufficient foundation for the story—that the King of Sweden had proposed to enoble the eminent chemist, but that Scheele declined the honour. But Scheele's nobility needed no royal patent; little as we know of his private life, it is evident that in every position which he filled his first idea was to do his duty; even his beloved scientific researches had to give place always to the duties of his business. And now the time had come for him to assume a new position in life. On May 18, 1786, he married the lady for whom he had worked so long. On that same day he was stricken down with fever. Three days later he executed a will leaving to her all his little possessions; and the next day he died. He had not completed his 44th year.

The work he accomplished as a chemical discoverer is nothing short of marvellous. And it becomes more so when we remember the bare education, the limited means, and the scarcity of leisure which were at his command. He discovered, or at least isolated and described, chlorine, baryta, and oxygen. He just missed the glory of associating his name as the discoverer of the latter-named element because he did not publish his researches as soon as he made them, but his process of obtaining oxygen has been followed to the present day. To him we owe our first knowledge of the composition of the air, of ammonia, and of Prussian acid, though curiously his paper on Prussian blue does not give any indication that he suspected the poisonous nature of the acid which has been called after him. The following long list of acids were first prepared by him, namely, fluoric, molybdic, tungstic, arsenic, lactic, gallic, tartaric, oxalic, citric, and malic. To these discoveries must be added sugar of milk and glycerine, various processes in chemistry, and researches on ethers. For the last ten years of his life he received an annual grant of 100 reichthalers from Stockholm Academy of Science towards the expenses of scientific researches—a sum equal to about 30*l.* per annum. Most of his experiments were conducted in his shop, and it is stated by Nordenskjold that his library after his death contained only 12 books on medicine and chemistry, with a few others in Swedish, French, and German, and was valued at 26*s.*

Surely these briefly-narrated facts will suffice to show that of all the famous pharmacists who ever lived none more deserves to be held in honourable remembrance than he who lived at the Golden Lion in Koping.

CHEMICAL SOCIETY.

April 20.

DR. GILBERT (President) in the chair.

The following papers were read:—

"On the Atomic Volume of Iodine," by Dr. Ramsay, the mean value obtained was 36·69.

"On Molecular Volumes," by Dr. Ramsay. The author contrasts the relative probabilities of the antagonistic theories of Kopp and Schröder, and concludes that Schröder's hypothesis is untenable. The author has also determined the molecular volume of the group CH_2 , at various pressures, and concludes that its value is less constant the higher the pressure. Thus, at 20 m.m. pressure it varies from 17 to 21, at 30 atmospheres from 26·1 to 54·3.

"On the Action of Acetone on Phenanthraquinone, both alone and in the Presence of Ammonia," by Dr. F. R. Japp and F. W. Streitfeld. A white crystalline substance is formed $\text{C}_{17}\text{H}_{15}\text{NO}_2$, which melts with decomposition about 230°, and when dissolved in strong hydrochloric acid, and diluted with much water, forms a crystalline substance $\text{C}_{17}\text{H}_{14}\text{O}_3$, melting at 96°. By heating phenanthraquinone and acetone in sealed tubes to 200°, this substance, $\text{C}_{17}\text{H}_{14}\text{O}_3$, is also formed, and by passing ammonia through its ethereal solution the substance first described, $\text{C}_{17}\text{H}_{15}\text{NO}_2$, can be prepared.

"A Study of Some of the Earth Metals Contained in

Samarskite," by H. E. Roscoe. The author by crystallising a mixture of formiates of terbium and yttria, obtained rhombic crystals exactly resembling the so-called formate of philippium. This supposed new metal philippium has therefore no existence.

"On the Spectrum of Terbium," by H. E. Roscoe and A. Schuster.

"On the Action of Thiophosphoryl Chloride upon Silver Nitrate," by T. E. Thorpe and S. Dyson. The authors hope to obtain a mixed anhydride resembling nitrosothiophosphoric acid, in which some of the oxygen was replaced by sulfur, but the open question is whether such substance was formed.

"On the Action of Potassium Amalgam, Hydrogen, and Potassic Hydrate Respectively on Tetraphosphate of Potassium," by V. Lewes. Potassium amalgam and tetraphosphate form hyposulphite of alkali to produce some sulphide is produced, furnishing similar products.

"On the Action of Zinc, Magnesium, and Iron as Reducing Agents, with Acidulated Solutions of Ferric Salts," by T. E. Thorpe. The conditions for maximum reduction in the case of zinc are concentration of the ferric salt, a small amount of free acid, and a rather high temperature. Magnesium acts much less efficiently than zinc. When iron is used with one of temperatures apparently decreases the reducing action.

May 4.

DR. GILBERT, President, in the chair.

Professor J. Dewar, F.R.S., delivered a lecture on "The Recent Development of the Theory of Dissociation." After referring to the earlier work of Black, Deville, Trowt, and others on "Physical Chemistry," pointed out the origin of the term "dissociation," and the experiments made thereon. Deville, Trowt proved that dissociation is a function of temperature, that it is independent of mass and that its action is reversible. The process resembles in any respects the condensation and volatilisation of a vapor. The experiments, in which vapours are conducted through porous tubes, only prove that dissociation takes place, but do not tell us the extent of the dissociation. Exact determinations of the partial pressures obtained by heating various substances, as ammoniochloride of silver, water, and the like, to certain temperatures have been made, and thus curves have been drawn which, by inspection, show the pressure necessary to prevent the decomposition of any particular temperature. Recent investigations have shown that solid substances have a temperature analogous to the "critical point" of gases above which they cannot exist. Thus when hydrogen sulphide and water are subjected to great pressure at low temperatures a crystalline hydrate is formed; but above 40° C. this substance cannot exist, however great the pressure may be. If a mixture of hydrogen and iodine be heated to about 300° C. iodine is formed; if hydriodic acid be heated to 300° C. free hydrogen and iodine are formed, and the resulting mixture of hydrogen, iodine, and hydriodic acid has in each case the same composition. The lecturer demonstrated the cycle of Carnot, and showed how a form of heat could be deduced from it by which the latent heat of chemical compound could be calculated. The researches of Andrews on the liquefaction of carbon dioxide was insisted upon, and the analogy results with the dissociation of chemical out. In conclusion, the author discussed the dissociation of elements in the sun's atmosphere, reasoning from a legitimate extension of the law of dissociation, inferred that if hydrogen be considered as the elementary form of matter, the sun's atmosphere is most favourable for dissociation.

KOPF'S EXTRACT OF MEAT AND COMPANY.—At the adjourned annual general meeting of the company, on April 29, the chairman announced that the directors were negotiating arrangements which, it was believed, would benefit the company. An arrangement was being formed by some influential gentlemen proposed to take over and carry on part of the business, the meeting was adjourned till June 28, when the ordinary annual business would be brought before the members.

May 1882.]

DISCUSSION ON PATENT MEDICINES IN THE HOUSE OF COMMONS.

Fri night last, in the House of Commons, on going into committee of Supply, Mr. Warton (M.P. for Bridport) called attention to the subject of the sale of patent medicine. He said:—The word "patent" arose, as the hon. member was probably aware, from the fact that in ancient times "patent," that is open letters, were granted to persons with the monopoly of vending certain articles. The earliest patent medicine on record was Dr. Stomachic Elixir, though he could not inform the House what the ingredients were. (A laugh.) Abuses soon interposed with restrictions. The patents were limited to a certain term of years, and a specification of their character was also required. Those who invented those medicines found that they could do more with a patent than with one. An Act of the 52nd George I. was passed on that subject. It was provided that inventors of those medicines should no longer be entitled to patents, but that they should be required to pay star duties. The hon. member then read some of the lists in a list of several hundreds of patent medicines in order to show how quacks were in the habit of calling the nostrums the most high-sounding and quasinal names, the better to impose upon the public. He said it a great deal of quackery was promoted by the Government stamp now levied on these medicines, which was often advertised as 1s. 1½d. with Government stamp. An apparent sanction, which he disapproved, was thus given by the Government to these medicines, and he suggested that the Chancellor of the Exchequer still thought fit to impose those duties, there ought at least to be some words on the stamps indicating that they were levied for revenue only, and were no guarantee for the goodness of the medicines. The Government, he held, ought not to profit from the evil which resulted to the public through the sale of those medicines. Another point he had was that at present, although restrictions placed by the Pharmacy Act of 1868 on the sale of poisons, properly so called, and although no one, unless he man, could get certain poisons without very difficulty, yet it was open to any patent medicine to sell those medicines although they might contain poison. The 16th section of the Pharmacy Act reserves the rights of persons making or dealing in medicines. He wished to see vested interests respond; but they ought to be jealous of vested interests affecting the public health, and he wondered how that the quack medicine interest was so strong in causing the insertion in the Act of that year of exemption in its favour. The 17th section, however, should be unlawful to sell any poison, tail, unless the bottle or packet containing it was labelled "poison"; but he doubted whether words overrode the special exemption in respect to patent medicines. The hon. member said in which, in January last, a chemist selling a bottle of solution of chloral a label bearing the word "poison" to referred to that case to show what amount might be in a patent medicine. Counsel mentioned that the solution contained 264 grains in a large glass in a small bottle; it was undoubtedly

a poison, and 30 grains of it might prove fatal. A case had occurred of a lady obtaining, unknown to her husband, between October 19 and November 8, above 3l. worth of chlorodyne, and she had so injured her brain and nervous system that she was now the inmate of a lunatic asylum. It was well known that the manner of advertising patent medicines produced a world of harm. A man was ill, took something, got better, thought the something had cured him, and wrote a letter which was largely advertised. A Norfolk clergyman in such a letter offered to answer inquiries, and being a man of his word, he had to reply to 800 letters in one week. (Laughter.) This case showed how many fools there were in the world. Every trifling incident was turned into an advertisement, even such an incident as a traveller giving a pill to an Arab chief. The advertisers appealed to the Government stamp, and the public thought that was a guarantee. Why should it not be made obligatory to state that the stamp did not involve any guarantee? And when the patent medicines contained poisons, why should not the vendors be compelled to state the fact, just as much as when they sold poisons by themselves? The sale of coffee adulterated with chicory was a trifling matter compared with the sale of medicines containing poison. He hoped he should be forgiven for having occupied 26 minutes in bringing forward this interesting and important subject. (Hear, hear.)

Dr. FARQUHARSON said the subject was one of great interest in medical circles, connected as it was with looseness in the sale of poisons. Patent medicines were within the section under which it was necessary to label everything containing poison, but the provision was neglected. There were patent medicines that contained virulent poisons, and some more than one, with the occasional result, perhaps, that antagonistic poisons neutralised each other. One of the most dangerous compounds was an essence of linseed, containing a large quantity of morphia, from the use of which painful cases of poisoning had occurred. An established chemist had something to lose by negligence. But these medicines were sold by booksellers and grocers, who had not the same sense of responsibility, and they could be freely had at the stores, at one of which a Yorkshire lady had obtained chl. ral., which the local chemist had refused to make up, with the result that a few days afterwards she was found dead in bed. The anomalous state of the law was illustrated by the fact that the pharmaceutical solutions of chloral could not be sold, except by registered chemists, while a patent medicine containing a solution of double the strength was freely sold by grocers and others.

Mr. HIBBERT said he was glad that they had at last reached the notice of the hon. member for Bridport, who for some weeks had been exposed to a little ridicule on account of it, and who had shown that there was more in the question than many people imagined. The principal point to which he had drawn attention was one worthy of the attention of the Government. The imposition of the stamp was probably one of the means of raising money resorted to during the French wars; whether it was desirable to continue the system as a means of revenue was a question on which he was not prepared to give a decided opinion. It was a different question whether it was desirable that we should continue to allow medicines, over which the Government had no control, and the ingredients of which they could in no way guarantee, to be sold labelled with the Government stamp, producing the erroneous impression that some guarantee was thereby given. The hon. member had done good service in pressing that point, and if the labels were to be continued he should be glad personally if something could be added to show that there was no guarantee, and that the duty represented by the stamp was imposed purely for fiscal purposes. He was further doubtful whether it was right to allow mixtures of this kind containing poisons to be sold as medicines without being labelled in the same way as poisons were required to be labelled, so as to indicate at least the extent to which they were poisonous. Upon these two points he was quite in sympathy with the speech of his hon. friend opposite. He could not make any promise as to what the Government would do, and could only express a hope that the matter would be fully considered by them, and that some better system would be adopted than that which was now in force. (Hear, hear.)

MISCELLANEOUS FORMULÆ.

JAMES' FEVER POWDER.—F. Scherer, M.D. (Omaha, Neb.), gives in the *Medical Brief* as a formula for the genuine—

	Lbs.
Tersulph. antimony, powdered	1
Horn shavings	2

Mix, and throw them into a crucible, red-hot in the fire, and stir constantly until vapour no longer arises. Rub that which remains to powder, and put it into a proper crucible. Then apply fire, and increase it gradually, that it may be red-hot for two hours. Rub the residue to a very fine powder.

HOP CORDIAL (tasting like Hop Bitters).—

	Parts
Hop, daudelion, gentian, camomile, stillingia, orange peel, each	2
Spirit of wine	64
Syrup	16
Water	76

Stearn's New Idea.

CONDITION POWDER.—

	Parts
Elecampane root, fennugreek seed, flax seed, juniper berries, poplar bark, rosin, mustard bran, each	4
Liquorice root, ginger root, sulphate of soda, chloride of sodium, sulphur, sulphate of iron, each	3
Carbonate of soda, gentian root, each	2
Black sulphuret antimony, nitrate of potash, coriander seed, valerian root, each	1
Blood root, lobelia, mandrake root, and excised alum, each	½

Stearn's New Idea.

LIQUID BLUINGS FOR LAUNDRY USE.—

1. Dissolve indigo sulphate in cold water, and filter.
2. Dissolve good cotton blue (aniline blue 6 B) in cold water.
3. Dissolve Prussian blue with one-eighth part of oxalic acid in water.
4. Dissolve Tieman's soluble blue in water, with 2 per cent. of oxalic acid.

Stearn's New Idea.

HUDSON'S EXTRACT OF SOAP.—In answer to a correspondent, the *Zeitschrift*, on the authority of Skalweit, gives the following receipt for this well-known cleansing material:—

	Parts
Dry soap	15
Dry carbonate of soda	30
Water	55

EXTRACT YLANG-YLANG.—

Best oil of ylang-ylang	10 grammes
Oil of rose	2 drops
Oil of orange-flowers	10 grammes
Tincture of musk	20 to 30 "
Spirit of jasmine	900 "
Orange-flower water	100 to 150 "

Pharm. Zeitung.

BROWN'S TROCHES.—The following is said to be the formula of the above:—

	Ounces
Powdered extract of liquorice	16
" sugar	24
" cubeb	4
" gum arabic	4
Extract of conium	1

Mix, and with sufficient water make troches of the proper size.—Drug. Circular.

A MINIATURE GARDEN.—*La Nature* gives the following instructions for raising a live bouquet as a pretty ornament for a room:—Get a cheap sponge—the bigger the better—and, having dipped it in warm water, squeeze out half the water. Put into the holes seeds of millet, barley, purslane, red clover, grasses, &c., and in general any seeds germinating easily, and that will give a considerable variety of colours. Place the sponge thus prepared on a vase, or hang it in a window facing the sun. Sprinkle it with water every morning during a week. The sponge will soon be covered with vegetation.

EXCIPIENT.—One part of tragacanth and glycerine form an excellent excipient for quinsacol and some other pills.

GREASE ERADICATOR.—

	Oz.
Castile soap in shavings	4
Carbonate of soda	2
Borax	1
Aqua ammonia	7
Alcohol	3
Sulphuric ether	2

Soft water enough to make one 1 gallon. Add the water until it is dissolved, and then add the other ingredients. Although it is not apparent whether either can do in a gallon of liquid, the mixture is said to be very efficient.—*Druggists' Circular*.

ANISE-SEED SOOTHING CORDIAL.—Widow's root preparation contains too much alcohol and too little water to be entitled to the name of syrup. It is more properly an elixir or a cordial. Its correct formula, however, has not been published, so far as we know. As a substitute, not as an imitation, we would suggest the following:—

Oil of anise-seed	drachm
" coriander	drops
Deodorised tincture of opium	fluid oz.
Alcohol	pints
Syrup	"
Water	"
Cudbear	to 3 drachms

Mix together, and after macerating 48 hours filter the paper. Each fluid ounce will contain nearly half a grain of opium, equivalent to about one-fourth of paregoric. The cudbear is only added, a present to impart a distinctive colour, and may be omitted.—*Druggists' Circular*.

LAXATIVE FRUIT LOZENGES.—

	Parts
Aqueous extract of senna (first deprived of resin)	40
Pulp of purging cassia	20
Pulp of tamarinds	5
Spanish extract liquorice	4
Resin scammony	4
Sugar (and tartaric acid)	40

Made into large oval lozenges of 82 grains each, and are dipped in melted chocolate and afterwards covered with a crystalline coat of pure cane sugar.—*Stearn's New Idea*.

SYRUPUS FERRI PROTOCHLORIDI.—Dr. Alfred (American Journal of Pharmacy) gives the following formula:—

Liq. ferri perchloridi, U.S.P.	3r. m.
Glycerini	3r. m.
Syr. simpl. q. s. ad.	13xvi.
Ol. rosa, ol. neroli, of each	gtt. i.

Mix and expose to the sun until quite colourless. (This four days in summer, six to eight in winter.) The ferric protochloride is reduced to ferrous chloride by the sugar in presence of rays of the sun. One fluid drachm of the syrup is to 10 minims of tinct. ferri chlor. It is does not blacken the teeth, is more easily assimilated, and can be mixed without change of colour with bark, tincture of gentian, syrup of hypophosphites, &c., of bromides, &c.

BATEMAN'S PECTORAL DROPS.—In the (April 27) Dr. Hager says he had formerly stated in his handbook that Bateman's benzoated tincture of opium coloured with anise shows a larger proportion of opium than the tincture. He now gives the following formula:—

	Oz.
Tinct. opii simpl.	14
Tinct. opii benzoica	20
Tinct. castorei Canadensis	5
Coccinellarum contritum	1

Dose for adults 20 to 30 drops morning and evening. The German name for the medicine is "Bates' opium drops." Their tinct. op. benz. is 1 in 13·3. Their tinct. op. cast. is 1 in 24. Their tinct. op. cocc. is 1 in 24.

YELLE LEATHER POLISH.—Three to four lbs. of fine and 1 lb. of burnt bones are well mixed with 5 lbs. of rind and 5 lbs. of saccharine syrup. About 85 grammes of per cent. are gently warmed in a kettle until the percha is taken, when 320 grammes of olive oil are added. completely dissolved 32 grammes of stearine are added. solution is poured warm into the other, and intimately mixed, at which 160 grammes of Senegal gum are dissolved in water, and afterwards 15 grammes of rosemary lavender. When used it is diluted with 3 or 4 parts of water, and it is not only a brilliant polish, but, owing to its properties, keeps the leather very elastic and soft.

BOTTLES.—The following preparation is recommended as an efficient solvent for grease in obstinately dirty bottles:

	OZ.
Cast soap in shavings	4
Carb. of soda	2
Born. oil	1
Aqua ammonia	7
Alco.	3
Sulphur ether	2
12 soft water sufficient to make one gallon.	

It should be boiled in the water until it is dissolved, the other ingredients then added.

SOAPS.—The *Pharm. Centralhalle* quotes from the following formulae for the favourite soaps:

Crème à la Rose.

	LBS.
Castor oil	12
Almond oil	5
Lard	1

Perfumed with 30 drops of bergamot and 5 of geranium oil.

Crème d'Amandes Amères.

	LBS.
Castor oil	12
Almond oil	5
Lard	1

Perfumed with 30 drops bitter almond oil and 5 drops geranium oil.

The oil should be melted in a water-bath, and the mixture cooled; it is then moderately warmed, poured in in a thin stream and stirred constantly meanwhile. The mixture should be transferred to a large marble mortar, and worked up with the pestle until the pearly appearance is obtained. Perfumes and any colour desired dissolved in spirit should be added while the crème is being prepared in the mortar.

ANNE FORMULA.—Peltz, in the *Pharm. Zeitschr. Land-*, commends:

	Parts
St. lard	100
Lime-water	8.0
Six to eight gr. of chloric acid	3
Twenty-five gr. of distilled water	25
One fluid drachm of potash	600
Thirty gr. of lard	30
Three drachms of lime-water to make up the weight to	1,800

The mixture should be made in a porcelain or enamelled iron vessel. The lard is first dissolved in the lime-water over a moderate fire, with frequent stirring. To these are added the chloric acids, which change the solution to a brownish-yellow colour. After half-an-hour's heating in the steam-bath the mixture is set aside and is strained or filtered. Lastly, the gum Arabic, each separately dissolved in a quantity of distilled water, are added, and the water to make up the necessary weight. The red colour, which quickly turns black, is removed by steel pens; and if it dries, needs only the

DR-OIL MADE.—

	Parts
Dr. oil	630
Castor oil	170
Aseline	100

to fancy.—*Pharm. Centralh.*

RIESEBERG'S IODINE CAUSTIC.—This preparation has been used in the treatment of lupus. It contains—

	Ounces
Iodine	1
Glycerine	2

It is applied every second day with a camel's-hair brush, but as the preparation is very powerful its action requires to be carefully watched.—*Druggists' Circular.*

FLOUR PASTE.—

Flour	4 ounces
Water	1 pint
Nitric acid	40 minimis
Oil of cloves	5 "
Carbolic acid	5 "

Thoroughly mix the flour and water, strain through a sieve, add the nitric acid, apply heat until thoroughly cooked, and when nearly cold add the oil of cloves and carbolic acid. This makes an excellent paste for all pharmaceutical uses. In dry climates the addition of about 5 per cent. of glycerine prevents it from drying up too soon in the mucilage-pot when used on the prescription counter.—*Druggists' Circular.*

DEODORISATION OF IODOFORM.—Tonquin bean is the best among the substances hitherto recommended for this purpose. Petersen suggests tincture of musk $\frac{1}{2}$ to 1 drop for 30 grammes of iodoform; Ruetz, 10 centigrammes of thymol to 2 grammes iodoform; Hoening, 2 centigrammes of coumarin to 1 gramme of iodoform.

ATROPINE VASELIN.—In the *Prager med. Wochenschrift* Dr. Schenke recommends vaselin as a vehicle for atropine, in preference to the solution. Goldzieber's formula, which he gives, is atropine sulphate 0.02, dissolve in a little water and rub very carefully with 5.0 vaselin (1 in 250). This can be more readily trusted in the hands of patients than the solution. Its mydriatic action is often prompter. It can be easily combined with ointments. The method of application is more agreeable, and the preparation is more permanent than the solution.

TO REMOVE FRECKLES.—Take of—

	Ounces
Oil of almonds	4
Lard	3
Spermaceti	1

Melt, and add of expressed juice of houseleek 3 fl. ozs., and stir until the mixture solidifies by cooling. A few drops of some perfume, as Cologne, may be added. This is grateful and perfectly harmless, in the latter respect differing from many of the recipes recommended, owing to their being more speedily effective.—*Oil and Drug News.*

ELATINA (FOR COUGHS).—

	Parts
Green pine cones	600
Olibanum	8
Balsam of Tolu	5
Rosin	4
Juniper berries	60

The ingredients are covered with a sufficient quantity of water, allowed to stand overnight, and next morning 1.200 parts of liquid are distilled off over a moderate fire. The distillate is filtered and bottled. The dose is stated to be half a wineglassful two or three times a day.—*Pharm. Zeit.*

ARTIFICIAL MEERSCHAUM.—Hager (*Pharm. Centralh.*) quotes the subjoined formula from Wagner:—

	Parts
Calcined magnesia	6
Oxide of zinc	1

Made into paste with an ammoniacal solution of casein precipitated from milk [by acetic acid], and the mass subsequently dried.

GLYCEROLE OF BISMUTH.—M. Baréan recommends the following process in the *Union Pharmaceutique*:—Triturate the starch and bismuth subnitrate in a mortar, adding from 5 to 10 grammes of water. Heat the glycerine alone in a capsule. When it is on the point of boiling pour in quickly the mixture of starch and bismuth, withdraw from the heat and stir with a spatula. A fine creamy product is thus obtained.



OFFICE—44A CANNON STREET, LONDON, E.C.

PRICES FOR 1882.

MINERAL WATERS.

7½ PER CENT. FOR CASH.

5 PER CENT. ON QUARTERLY ACCOUNTS.

**E. GALLAIS & CO.,
27 MARGARET ST., REGENT ST.,
LONDON.**

SEE SEABURY & JOHNSON'S Advertisement of INDIA-RUBBER POROUS AND SPREAD PLASTERS on page 137.

MUMFORD'S PARIS 1875
PURE CRUSHED LINSEED

In 7, 14, 28, 56 lb. and 1 cwt. Bags, 20s. per cwt. net, bag included; delivered free in London, and in Tins, 4s. per doz. BEST QUALITY; NO OIL EXTRACTED. Carefully cleaned and ground so as to retain the natural colour of the seed without being heated.

**MUMFORD'S
PURE STARCH POWDER**

Per cwt., net, 28s., delivered free in London in 7-lb., 14-lb., 28-lb., 56-lb. and 1-cwt. Bags.

6, S. MUMFORD, STEAM MILLS, FARRINGDON ROAD, LONDON, E.C.

STEDMAN'S TEETHING POWDERS.

1/14 size (containing 9 Powders)	8/6 per dozen	less usual discount
2/9 " " 27 "	24/0 "	
4/6 " " 54 "	42/0 "	
10/0 " " 216 "	11/0 net.	

A mixed parcel to value 78/- net, at 6/6, 18/-, 34/-, and 120/- per dozen.

TERMS—Cash with Order. Drugs Packed for the Colonies. Manufactory—125 NEW NORTH ROAD, LONDON, N.



A GOOD AGENCY for CHEMISTS.

Prepared by a Special Process, and Guaranteed Pure. Put up in handsomely labelled Tins, and sells well on introduction. Tins 6d., 1/-, 2/-.

Trial Assorted Cases at 10/- or 25/-, with Show Cards and Handbills.

CHAMBERLIN MANUFACTURING CO.
1 DENMAN ST., LONDON, S.E.

Post Free.

WHOLESALE PRICE LIST OF
HOMOEOPATHIC MEDICINES.

Mother Tinctures, Pilules, Globules, Sugar of Milk, Medicine Chests, Bottles, Cardboard Goods, and all Sundries connected with the Homoeopathic business.

W. BUTCHER & CO.,
Wholesale and Export Homoeopathic Chemists,
315 Regent St., W., and Spencer Place,
Blackheath, S.E.

PARIAN STATUETTE,
Height, 10½ in., Trade Price, 8s.



SCHWEPPÉ'S
MINERAL
WATERS

CARRIAGE PAID
On 12 dozen and upwards
AS
SUPPLIED
To HER MAJESTY
THE QUEEN

TRADE ADVERTISEMENT.
PRICE LIST ON APPLICATION.
51 BERNERS STREET, LONDON.

LLOYD'S UNIVERSAL FOOD.

The New Cooked Food for Infants, Children, and Adults, both in

SPECTACLES. } See HENRY LURANCE
Advertised page 11.

SYRUP OF HYDRIODIC ACID. } See page 20.

HAY'S SOLUBLE ESSENCE OF GINGER. } See page 20.

HAY'S GINGER CHAMPAGNE. } See page 57.

TASTELESS CASTOR OIL. } See page 182.

CHEAPEST CONDY'S FLUID OF ALBUMIN. } See page 11.

HOMOEOPATHIC MEDICINES (KEEN ASH). } See page 18.

MAY & BAKER. } See page 11.

EDITORIAL

NOTES.

REGULATIONS FOR THE SALE
POISONS.

If Sir William Harcourt has depended on pharmacists for suggestions he will not be able to make progress with his intended Bill to regulate the sale of poisons. The Pharmaceutical Council at their annual meeting, presenting the semi-official firms of Messrs Savory & Moore and Squire, have drawn up a series of suggestions, which they have submitted to the Home Secretary, but it is difficult to see how he could well base a Bill to introduce such a regulation. Their proposals are (a) that wholesale dealers should keep a record of sales of poisons for a year, and (b) that patent medicines containing poisons should be subject to a similar regulation under restrictions similar to those which apply to the poisons sold otherwise than under the patent-me

May 1, 1882.]
 p., accomplishing this object by repealing the exemption
 in Section 16 of the Pharmacy Act, and requiring
 patent medicines to carry a label indicating the
 contents; (c) that a certain course of technical
 and training prior to examination should be re-
 quired those persons to whom compounding and sale of
 poisons are entrusted; (d) that it is unnecessary and imprac-
 tical to further restrict the sale by retail of poisons, or the
 of medicines containing poisons, dispensed from ordinary
 prescriptions.

Now the suggestions submitted to the Home Secretary by the Pharmaceutical Council. No doubt they have been considered, and we presume they have been framed in regard with what it is believed would be the view of trade. The first, in reference to wholesale dealing, is simple and desirable. The second, in regard to medicines, is one which chemists have pretty well got up in their minds upon, and which cannot be logically resisted, though it would, no doubt, be vigorously resisted by the makers of poisonous patent medicines. The third is a very handsome attempt to take advantage of Sir Sam'l. Courtney's confiding simplicity, and to run the currant into harbour by the aid of a side wind. We owe success to that scheme. The fourth suggestion, however, is the only one on which issue may be made; and respecting this we frankly confess that the action is likely to be more popular than that which we should have thought might have been suggested. In view of the storms of 1870 and 1871, when the Medical Council, at the suggestion of the Privy Council, attempted to enforce regulations for keeping and selling poisons, we are not surprised that the present Council should be reluctant to recommend the Home Secretary to do as such in his intended Bill. But if they had made any such suggestion, we do not believe they would meet with anything like the opposition which we remember well. We wrote in January, "Pharmacists ought to be willing on their part to give sufficient guarantee of ever security which can be devised shall be taken to prevent criminal, suicidal, and accidental poisonings." No one disputes that simple proposition. Neither do we gainsay the demonstrable fact that accidents happen, and may happen again, through a carelessness of deadly drugs. Is it unreasonable that the nation, through the Government, should demand of those to whom handing of poisons is entrusted that those poisons should be stored with such care as will certainly make the medicine consumers safer? We know that it may appear that the best chemists already take all the precautions it can be taken. Such persons, then, will not be asked an enactment. Is it, however, the case that all chemists follow the example of the wiser ones? These points were the familiar topics of discussion ten years ago. The reason why, unanswerable as the argument applies to the former in this respect is a matter of first, never up a second, and a Bill introduced by the Government would certainly recognise that requirement. Given such a concession, we see no sufficient reason why the trade should accept reasonable regulations; nor, indeed, why the medical Council, when consulted as the official representative of the trade, should not have advised them. An most likely the Government would carry, would be to protect the public. The public have a right to expect

such protection, and chemists can best serve their own direct and indirect interests by frankly and cordially assisting in the preparation of measures which will affect them.

THE CAUSE OF TUBERCULAR DISEASE.

THE wonderful investigations of Pasteur in France, proving the parasitic origin of various forms of disease in men and animals, have been followed, and it may be said in some degree rivalled, by the series of experiments in a similar direction reported by Professor Koch of Berlin. Koch is the director of the pathological inquiries in the office of the Imperial Board of Health at Berlin, and has become well known in the medical world by previously published researches on the etiology of splenic fever, and on wound infection. For some time past he has devoted his labours to a study of the conditions in which tubercular diseases in men and animals are propagated, and the exhaustive researches which he publishes appear to be accepted by all competent critics as conclusive in regard to this most momentous problem in the whole range of medical inquiry. Tubercular diseases are said to occasion one-seventh of the deaths of the human family; a scientific knowledge of their cause can hardly fail to bring about an improvement in the method of their treatment, if the possibility of completely triumphing over them should be too wild a hope.

Koch finds in all tuberculous matter a minute rod-shaped parasite, to which he has traced the disease. The method of demonstrating the existence of these peculiar tubercle-bacilli is of great interest. A piece of tuberculous matter, or a thin layer of the fluid of the tissues, is coated over a cover-glass, which is then dried and warmed so as to render it insoluble. The glass is then left for 24 hours in a solution of 1 ec. of a concentrated alcoholic solution of methylene blue, .2 ec. of a 10 per cent. solution of potash, and 200 cc. of distilled water. The preparation is thereby coloured blue. The application of a few drops of an aqueous solution of vesuvin discharges the blue colour from all the organic matter except from the tuberculous bacilli. This remarkable characteristic, according to Koch, occurs only, as far as he knows, in the case of the tubercle- and the leprosy-bacilli. All other bacteria and micrococci are changed to brown by vesuvin.

Koch claims to have proved by numerous experiments—and his observations have already been confirmed by Dr. Baumgarten—that these peculiar bacilli are invariably present wherever there is tuberculous matter. The crucial question then arises, Are they the causes of the morbid surroundings, or are the latter, to speak unscientifically, the cause of them? This question Koch appears to have resolved by patient and skilful investigation. On this point we may quote from the clear summary of his account given by Professor Tyndall in the *Times* of April 22:—"To meet the objection that it was not the parasite itself, but some virus in which it was imbedded in the diseased organ, that was the real contagium, he cultivated his bacilli artificially for long periods of time and through many successive generations. With a speck of matter, for example, from a tuberculous human lung he infected a substance prepared, after much trial, by himself with the view of affording nutriment to the parasite. Here he permitted it to grow and multiply. From this new generation he took a minute sample, and infected therewith fresh nutritive matter, thus producing another brood. Generation after generation of bacilli were developed in this way, without the intervention of disease. At the end of the process, which sometimes embraced successive cultivations extending over half a year, the purified

May 15, 1969

bacilli were introduced into the circulation of healthy animals of various kinds. In every case inoculation was followed by the reproduction and spread of the parasite and the generation of the original disease."

Guinea-pigs, cats, rabbits, rats, mice, and other animals were thus experimented upon. At first they were inoculated in the abdomen; afterwards a speck of bacillus-culture, obtained originally from a diseased lung, and purified by perhaps half-a-dozen generations, was placed in the aqueous humour of the eye, always with the result of inducing tubercular disease in the animals so treated.

A very important observation is that these bacilli are invariably found in the sputum of phthisical patients. Even the dried sputum will produce tubercle when inhaled.

REPORTS OF THE PHARMACEUTICAL
SOCIETY AND OF THE CHEMISTS
AND DRUGGISTS' TRADE ASSOCIA-
TION.

THE annual meetings of the two Societies which between them care for the trade and professional interests of British chemists and druggists are to be held in London next week, and the reports to be laid before those meetings have been issued.

The Chemists and Druggists' Trade Association will hold their meeting on Tuesday the 16th at the Inns of Court Hotel. Their story of the year is not an eventful one, and it cannot be said that their position is in all respects satisfactory. Their wealth, for instance, has declined from £16*l.* 10*s.* 6*d.* to £13*l.* 17*s.* 2*d.* Their income for the year from subscriptions amounts to £91*l.* 5*s.*, representing 2,765 subscribers. Last year they claimed 4,315 subscribers, though they deducted from their assets the sum of £81*l.* 15*s.* for outstanding subscriptions. It is to be feared that only times of trouble can ensure prosperity to this most useful Association, and if the Apothecaries' Society and the public analysts can only have patience for about a couple of years longer they can then cry "Havoc!" and let slip the dogs of war," without the danger of meeting with the organised defensive body which has so valiantly met them in the past.

The report, as far as it shows anything, indicates that the Association have done their work in the past only too well. Under the Sale of Food and Drugs Act two cases only came before the Executive. One they would have defended, but the prosecution withdrew; the other was not a suitable case to support. No annoyance under the Weights and Measures Act has been experienced. The medical bills in Parliament last session were abandoned without a fight, and no chance of assisting in promoting the Pharmacy Act Amendment Bill has occurred. Eight convictions under the 17th section of the Pharmacy Act have been obtained, and an important judgment in the High Court was gained by the Association affecting the sale of poisons by so-called agents. Clearly useful work has been done, but it is not of such a nature as will call forth enthusiastic support. The Association does its work as economically as such work can be done, but the tendency is evidently towards dissolution, and when the organisation no longer exists, a necessity for it may arise, and the trade will find, too late, that it is not easy to call into existence a representative and operative body such as they have had for the past six years.

The report of the Pharmaceutical Council is a far more extensive affair than that of the Trade Association. The latter body spends about 1,000*l.* a year; the financial transactions of the former figure for more than 15 times that amount in receipts, and they show a favourable balance on the year's work of over 1,100*l.* Last year they showed a loss of about 350*l.* in

consequence chiefly of the legal contest which
the House of Lords. The subscriptions of a
amount to 4,781*l.*, which is 50*l.* less than last
nations bring in 4,662*l.*, and cost 2,216*l.* The
income from this source was 25*l.* more, but
were over 60*l.* more. The journal account
more in detail than it has been before,
claims a balance in favour of the Society of
for some unexplained reason the cost of the
journal, amounting to 688*l.* 1*s.* 4*d.*, is shown
therefore has to be deducted from the favours
thus showing a balance the other way of 588*l.*
is nearly 100*l.* less loss than last year shows
must not be taken as an indication of the
journal as a commercial property, as a
proportion of the 4,781*l.* paid by members, contri-
tions to the Society is in reality paid for the journal.
expense during the past year has been that
the International Pharmaceutical Congress
voted 100*l.* before this event, and then,
additional duties, such as producing the report
run up their contribution to 412*l.* The British
paid 16 annuitants 35*l.* each, and 30*l.* each to
Besides these the sum of 67*l.* was expended
grants. The management of this noble fund
postage, printing, and stationery, cost 2*d.*, un-
certified.

The items of the report are not very striking. It is stated that during 1881, 140 infringements of the Pharmacy were reported to the Registrar, and in each case inquiries were instituted and the offender communicated with. In some cases, but the report does not say how many, proceedings were taken.

A paragraph respecting the poisons policy and another on the curriculum proposal mailings for the fervid oratory which may be looked for Wednesday next, when the members of the Society meet to criticise, to condemn, or to honour their representatives.

PROPOSED STATE AID FOR A
VETERINARY COLLEGE.

A DEPUTATION waited upon the Lord President of the Privy Council on April 26, to ask for Government assistance in the erection of a National Veterinary College. Earl Spencer, &c., and some ground were given up by the Government, but would not lay the matter before his colleagues, and would not give a hearty voice, &c., &c.

The Veterinary Surgeons are posing as Oliver are actually asking for more, not because they have recently secured an Act of Parliament which will oblige them to drag three or six guineas from the pocket of every veterinary practitioner in the kingdom, secured for themselves the enviable privilege of clients in the County Court. The Board Schools, Classes, and Colleges, are as freely open to the rest of the world. Yet in spite of these magnificents they send "an influential and highly deputation" to extract from the pocket of the taxpayer to found a big exclusive veterinary school. It is them that the Pharmaceutical Society, not to speak of significant colleges of physicians and surgeons in the capitals, have had to scratch for themselves all their educational establishments. These corporations regulate physic for men. The Veterinarians

representation they have on the Privy Council. If to secure the success of such a scheme, or any an a polite reception for a deputation, it is time council was purged. The Veterinary Act is far to the existing practitioner than either the the Dentists' Acts, and no reason for giving of the Society's greater privileges than other classes has yet

FFE AND COCOA MIXTURES.

Judge speech Mr. Gladstone announced that, in order to revenue, it was intended to prohibit entirely of all every mixture with coffee with the ex- of chicory. The effect of this decision, if carried be suppose, to put a final stop to the manufac- sal of malt, date, and dandelion coffees, not to sal of acorns and other substitutes which in- boths have discovered to possess peculiar virtues opic the aroma of the mocha berry. Any consumer is produc- over only be regulated by the combination of um with his morning beverage must buy the two separately, and 100*l.* penalty may be levied on the druggist who should happen to supply half a pound in the same paper. When the Customs and Inland Bill a which the Budget proposals are embodied, led, was found to extend further than was anti- Clause 6 provides that "if any person shall keep or se or expose for sale any article or substance or a, or which shall be alleged or intended so to be mixed with or called by any name of chicory or coc with which it is mixed, the same may be story which any officer of Inland Revenue, and the person pre- manufac- selling the same, or in whose me is found shall incur a fine of 100*l.*" sequene of this clause the cocoa-makers are g a vigorous resistance to the serious interference STATE AIR thus threatened. They allege that a large NARY CO of the public will not drink cocoa at all unless it is d in a mixed form which has become so familiar, a substantial-looking dish. On the 6th inst., a reseenting the cocoa trade had an interview e chaman of the Board of Inland Revenue, and the objections. The chairman of the Board is l to he said that it was not intended to interfere e pres't practice of the trade, the clause being a re- ent of one already in force; but he would consult e Treasury and give a more definite reply. One us suggested solution of the difficulty is that all es of coa shall be sold as chocolate; if that be per- it is lid to see why coffee-mixture makers should e a sim lar liberty.

"NY LKS" thus comments on the new idea of was :-

on round the ship the tempest rages,
little oil its wrath assuages,
d helps effectually to soothe it;
e ship's path, too, it serves to smooth it.
w curious, is it not, that sperm oil
ould be the antidote to turn-oil!

**

OUNG all from a neighbouring lawyer's office, while o a chemist in a Northern cathedral city for pision dispensed, remarked, "I suppose, Mr. his had been written on a scrap of paper in t have had it for 6*d.*?" "I doubt that," mist, in his blandest manner; "but I am

sure that had it been written on parchment it would have cost some one at least 6*s. 8d.!*"

**

A BILL has been introduced into the New York State Assembly ordering all persons selling poisons of any nature to put the same in a corrugated bottle or box, with a printed label giving the antidote in English and German. In case of failure to comply, the wholesale or retail dealer is declared guilty of misdemeanour. It may or may not be desirable to introduce such a requirement into the Home Secretary's proposed Sale of Poisons Bill, but it is quite certain that our medical printers would do some service to the trade by preparing a series of labels of the kind designated above.

**

THAT was a curious resolution of the International Pharmaceutical Congress, quoted with approval in the Pharmaceutical Council report, that "it is the duty of all pharmacists to urge that in the future revision of any National Pharmacopœia it is necessary that there should be a permanent committee or commission, comprising among its members the largest possible number of pharmacists." Imagination reels as we try to estimate how many pharmacists might be on a committee formed in accordance with the desires of the Congress and the Council.

We also learn with regret from the same report that "the candidates for the Major still continue to decrease." If the candidates "continue to decrease" much more, we shall have the examiners holding them up in their arms to question them, and, perhaps, ultimately placing them in the palms of their hands like Gulliver and the Lilliputians.

**

MESSRS. SEABURY & JOHNSON, of New York and London, have just finished a "round" with the United States Government, and no one who knows Seabury & Johnson's fighting abilities will be surprised to hear that they have come out victorious. A new tax collector had held that certain plasters manufactured by Seabury & Johnson should be stamped, and claimed \$3,448 as arrears. The firm resisted, but the American Inland Revenue law, which seems to be a little rougher than ours in such cases, gave them no chance of submitting the case for the decision of the law courts until after they had paid, when they might sue for charges wrongfully levied. They paid, therefore, and sued. The point at issue was that medicated articles, manufactured from the formulæ laid down in the United States Pharmacopœia, in order to be free from the stamp-tax, must have printed or stamped upon each label or wrapper a distinct reference to the formula. The firm printed upon their Pharmacopœia plasters the letters "U. S. P.", and claimed that this was a sufficient reference to the formula, as it was understood by all dealers. The revenue collector held that it was not. After hearing a number of witnesses judgment was given in favour of Messrs. Seabury & Johnson for \$2,810, the Court holding that the belladonna plasters of the firm had been so advertised as to bring them within the patent medicine category. Messrs. Seabury & Johnson take the \$2,810, and appeal for the balance too.

**

A cow of scientific tastes stepped out of its way last month along the Walkley Road, Sheffield, and entered Mr. Leslie's chemist's shop in that locality. Without passing any examination, or obtaining the pharmaceutical diploma, her ladyship calmly strolled round the counter, and took up her position in the place of the proprietor. There she got wedged, but bore her close confinement with true pharmaceutical patience. Counters and breakables were carefully removed, and madame retired from the illegal position she had taken up before Mr. Flux's myrmidons could arrive to put the penal clauses of the Pharmacy Act into operation against her.

**

"Do you keep open all night?" asked the reporter of the *Brooklyn Eagle* of a druggist whom he interviewed for the purpose of getting information as to the state of trade. "Not now," was the answer. "I tried it, and only had four customers in three nights. The first wanted an oyster stew, the second wanted a bed, the third wanted to know what

time it was, and the fourth wanted credit. So I gave it up. The scheme cost me \$14 for printing, and I took in a gas bill and some suggestions about rent."

"How much do I owe you for the Vichy?" asked the reporter; "I had one glass."

"We'll call it \$1.25," replied Mr. Theall, in an empty-barrel tone. "I trusted a newspaper man for a bottle of schnapps this week, and I've thrown in my society and conversation. That lets me out about square, and really puts you winner on the deal."

The reporter paid it, and went home more contented with his own lot in life than he had been since the preceding pay day.

* * *

LONDON COFFEE.—At the instigation of a Mincing Lane merchant Messrs. Wigner & Haillard have purchased from shops in and near London 37 samples of so-called coffee, and have tested them. One sample was sold as taraxacum coffee, and contained no coffee; a sample of dandelion coffee contained 10 per cent., and a sample of date coffee 57 per cent. of coffee. The other 34 samples were served in response to a request for "coffee," and of these two were composed of 100 per cent. of genuine coffee, and 32 were composed of coffee varying from 7 to 68 per cent., mixed with chicory, "finings," dates, dandelion, and other vegetable matters. Of these mixtures 15 out of the 32 were labelled "a mixture of chicory and coffee," but 10 of them contained other matters in addition to chicory. Fourteen were sold without any label, and of the remaining three one was labelled "specially-prepared French coffee" (this contained 34 per cent. of coffee), and the others bore a label announcing that they were "mixtures," but not saying of what. Of the 32 samples of adulterated coffee one contained over 60 per cent. of coffee, four contained between 50 and 60 per cent., four contained between 40 and 50 per cent., 10 contained between 30 and 40 per cent., six contained between 20 and 30 per cent., six contained 10 per cent., and one less than 10 per cent.

* * *

MR. WILLIAM WINTER, in the *New York Tribune*, mentions the following anecdote of Longfellow:—One morning a man forced his way past the servant who had opened the hall door, and burst in upon the presence of the astonished author in his library; and thereupon ensued this remarkable conversation:—"Mr. Longfellow, you're a poet, I believe?" "Well, sir, some persons have said so." "All right, Mr. Longfellow. Poet it is! Now, I've called here to see if I couldn't git you to write some poetry for me to have printed and stuck on to my medicine bottles. You see, I go round sellin' this medicine, and if you'll do it it'll help immensely; and I'll just tell you right now, if you give me the poetry I'll give you a bottle of the carminative—and it's one dollar a bottle." For the full enjoyment of this story it was needless to see the poet's face, and hear the delicious bland tone of voice in which he added—"The idea of its being a carminative, of all things."

Parisian Gossip.

— M. Raoul Picte has almost become a Parisian, as he has now organised a private laboratory, on an elaborate scale, near the Place du Trone, and his works at Croix de Bernay, Quartier de Sceaux, for the distillation of alcohol at a low temperature are nearly ready for operation.

— Several actions have recently been commenced against prominent mineral-water dealers who are, it is alleged, filling the genuine bottles with a falsified liquid.

— Your nursing-bottle makers are likely to get a bit of competition from an enterprising Gaul, who has of recent years been coining money here. A word to the wise may not in this case be sufficient, but I can only add that the inventive Gaul is awake.

— Add another to the numerous natural mineral-water sources which exist in France, and an extra word for the Montroyd Spring, a real Geyser, if the accounts at hand are to be relied upon.

— Siphon waters, in consequence of their exceedingly careless manufacture, are losing ground here. The initiated

have long known that the gas escapes emerging from the spout as to leave only aapid liquid unmixt.

— The bottled mineral waters made here by several large firms are of such a bad quality that the ade has in gases lar fallen into the hands of one of the oldest ar most rep export houses, for bottling, whose reputati waters ditto.

— The drinks whose titles end in —de have no captivated the Parisians, although a veryetic push made last season, and there are symptoms of another year. Mem.: Natural mineral waters are too plen and cheap in France to leave much opening for bo carbonated waters.

— Corylopis is the latest Oriental flowe placed in for fashionable perfumes; last year we had xora, Di these and other nouveautis of the great fumery b London scents lead the van in company with Co jackets, trousers, ties, umbrellas, and sticks.

— Two or three of our new pharmacies in Paris are a glance by English chemists when on the continent, especially with regard to fittings of two of these are especially cosy and elegant. The Pharmacie de l'Opera, in the Ave de l'Opéra, and the Pharmacie Continentale, near the church of St. Augustin: this last is a perfect bijou. The pharmacies now all go for titles, which swa a tendency towards the imposing. We have the Pharmacie Centrale, which is a leading wholesale company in the quarters of Paris; the Pharmacie Normande, in the centre of the town, does a rapid retail trade. The Pharmacie Nouvelle, Place de la Trinité, the first shop to establish the bar de santé, now quite in vogue; the Pharmacie Amerique, in the Quartier St. Lazare, under the leadership of H. Roger, "of Illinois," as he styles himself, a popular well-made shop; the Pharmacie de l'Etoile, the Pharmacie Ratier, the Pharmacie du Nord, du Sud, de l'Ouest, de l'Est, &c., all in vogue in their respective districts, &c. &c. No one passing down the Rue de l'Aix, across Place Vendome, and through the Rue Castellane, will fail to notice the plentiful supply of chemists' shops at least especial accommodation of English and American tourists. The prices in these elegant shops are, to say the least, heavy.

— As for dentists, the deluge is beyond exception, principally from the prolific U.S.A. The American dentist could be a size, and the all before him here, and old Croesus himself at his little accounts for tinkering up mouths. There are any more persons of the name of Land, familiar with the profession, I should recom them to hie hither, as it has acquired a good business. The great T. W. has made about million dollars in less than a year, and in the same man, and so on, to be of out of the Royal and Imperial mouths of Europe, and speculations in Paris real estate—a capital deserves his success. There are several others all doing well, and every year fresh arrivals reach us from the other side.

— Our new "immortal" M. Pasteur is busily engaged in vaccinating animals in the South of France.

— There is a very considerable vogue at *Vin de Banyuls*, a mild, comforting, natural malaga while not so alcoholic as port, at a little more than the price of ordinary excellent tonic is brought from the little town of Banyuls, not far from Perpignan, on the Rhône, and would make a suitable addition to any of course, it is not a spécialité, or it would this place.

— The decease of M. Salretat, former professor to the Ecole Centrale of Arts, and Porcelain Works at Sérrès, is announced.

— M. Freycinet, actually our premier Minister, has been elected member of the Academy of Sciences, as

— Vitriol throwing is more than ever frequent here, some very severe sentences have recently been passed up against the culprits.

— Alcohol is being distilled in the south sorgho, water-melons, and topinambour, and tilleries are constructing to use maize as States of America).

April report of the Paris Municipal Laboratory
other more favourable figures than formerly; 251
wine have been analysed, of which 50 were found
assable; 101 bad; and 4 injurious. Of milk, 66
re tested, of which 45 were good; 2 ordinary;
1. The inspectors have visited besides 3,234
units, in which they took 324 samples, and de-
merchandise represented by 60 others.

REVIEWS

Literary Notes.

*On the Relation to each other of Education and
Invention, especially with regard to Pharmacy in
Great Britain.* Second edition. By Professor Attfield,

ition of Dr. Attfield's pamphlet was issued at
of 1880, but was only circulated to a limited
no pharmaceutical councillors and examiners and
who took a special interest in pharmaceutical
lives a vigorous advocacy of the establishment
ical curriculum, permissive or compulsory, as a
to the examination of those who desired to
be actions of pharmacists. With untiring energy
A field has urged this step forward both by pen
and no doubt he has been mainly instrumental
g e policy so far advanced as it actually is. In
ing notice to this second edition of his pamphlet
it s offered to the members generally and to
ered in the establishment of a proper relation
education and examination." It will be found
ading, and will at least arouse thought and
subject which, if it is not of the supreme
the author seems to think, is yet a matter of
importance in its relation to the needs of
e present time.

ntly arrived at by the Pharmaceutical Council is
to have a curriculum established if they can agree
details of the scheme, and if the Privy Council will
concur. We showed last month that probability
is in favour of the realisation of either of
at present. Dr. Attfield's pamphlet will at least
promote the formation of an intelligent opinion on
among others besides the "leaders in pharmacy,"
times, contained in the pamphlet, do not seem, if
say so with respect, to be of a very weighty

view like this we cannot hope to do full justice to Professor Attfield's arguments, nor to explain sufficiently where occasionally we dissent from his either course is very necessary, however, that its forcibly-stated arguments, is readily seen that our objections are only such as would occur to the reader, while very few can have such unexpressed dogmatic opinions on the subject as

gements in favour of a curriculum are two : commercial. We will deal with the latter at any length ; but he does not ignore it. leaders in pharmacy " who agree vaguely proprie to intimate that it would hardly do to carry "in the hard times," "in the present depressed " in "her present circumstances," and so on. We R. Attif's reply on this point is conclusive. " That condition of pharmacy should afford a reason why to already overcrowded avocation should be easy is an argument he cannot follow." ear ar to the public and to students, a regulation can be check the influx of competition, it must to the interest of those at present in possession Beside which, so far as the curriculum makesarmac s and becomes known to the public as

part of the training of chemists and druggists, so far is the trade elevated in general esteem and position. Commercially, therefore, it seems to us that there is everything to recommend the curriculum, and we doubt whether any other argument in its favour is so clearly logical.

Professor Attfield, however, discusses the subject chiefly from an academical point of view, and in arguing his point he introduces so many side-topics on which controversy might fairly be opened that he risks, it seems to us, the force of his main argument. As a simple proposition, we believe it will be a good day for pharmacy when a regulation is established requiring that every candidate for examination shall have previously passed a certain period in a chemical laboratory: it may be desirable that a curriculum for one or two other subjects should be compulsory; but we do not perceive any very forcible reasons for insisting on a public course of anything besides chemistry. We can all perceive that the chemists and druggists of Great Britain will be a higher-class body of men when all, at one period of their lives, shall have necessarily gone through a certain approved laboratory training. Let the pharmaceutical body come to a general agreement as to how much compulsory training shall be required, and it is not likely that the Privy Council would long resist their wishes. What we complain of, however, is that neither Dr. Attfield nor the Council—who in this matter have followed his lead—put down their demands in clear, set form. Both involve their views in lengthy dissertations on the relation to each other of pharmaceutical education and pharmaceutical examination, and find themselves landed in propositions where the general sense of the trade will not follow them.

Dr. Attiield says his proposal is "to fit and adapt to each other pharmaceutical education and a public, and therefore properly supervised, properly-conducted, sound, and thorough system of pharmaceutical education" (page IV.). And a dozen times in the course of his argument he complains of the present fashion of adapting education to examination. On page 6 he contrasts the two systems, thus:—

To sum up respecting concord between education and examination. All seem agreed that the Society's system of education, especially with sound preliminary home reading on the part of the student, more or less perfectly suits the practical requirements of English pharmacy. The point is, that it and the system of examination are not satisfactorily in harmony with each other. On the other hand, as will be seen presently, all authorities seem agreed that a system of instruction under which the student, even with or without some kind of preliminary reading, crowds "preparation for examination" into a couple of months or so, is one which is superficial and ephemeral, and, therefore, inconsistent with the requirements of English pharmacy. The point is, that at present it and the system of examination are, only too closely, in harmony with each other.

Now it may be perfectly possible to contrast "the Society's system of education" and somebody else's "system of instruction"; it may be quite reasonable to oppose anything like "preparation for examination"; it may be quite easy to prove that "a couple of months or so" is an insufficient time to make a scientific pharmacist—but none of these diversions from the argument show that there is an atom of difference in principle between adapting examination to education and adapting education to examination. There is between these contrasted principles just the difference that exists between 3 times 5 and 5 times 3. A bottle may be fitted to a cork or a cork fitted to a bottle—the result will be much the same. So whether examination be adapted to education or education adapted to examination, there will be "preparation for examination," and "cram" will surely be practised.

But Dr. Attfield, of course, clearly knows what he wants. We gather that he would require the student to pass a technical examination in dispensing, prescription-reading, and pharmacy before he entered upon his general or scientific course. Then he would have him go through a curriculum to be defined and, in some sort, supervised by the Council. The examination at the end of that course to be based on what has been studied, and the purpose of it being rather to test the student's work during this past session than to analyse his ability all round at any particular day. Dr. Attfield, in short, would rely more on the course of study and on the certificate of the teachers than on the somewhat uncertain test of a brief examination. He advocates this policy or something like it as we have said, with great

force. We are not anxious to oppose his facts or his theories : but we may point out that the adoption of his proposal means a good deal more than appears at first sight. What is suggested is that the scientific course shall extend to five months, or half a session. How long will that period satisfy our leaders, with their longing eyes fixed on the French and German systems, with their courses of three years and upwards ?

It may be, of course, admitted that examination is not a perfect instrument for ascertaining the quality of a candidate, but in the hands of competent men it is an instrument which can, with very fair approximation, classify the abilities of those submitted to its test, whether they have been "varnished" or not. Cramming to a certain extent will surely continue so long as examinations last, but as a means of merely defrauding the examiners it is of far less importance than students and some others seem to imagine. Genuine "preparation for examination" is a legitimate and most useful concomitant of all examination systems, which it would be idle and ill-advised to attempt to "put down." "Preparation for examination" means to some extent cramming, and to some extent practical work; but it means above all the concentration of the faculties for a certain period on the particular subject or subjects of the examination. This is not objectionable : on the contrary, it is a most valuable power to cultivate. Chemistry can only be properly learned in the laboratory, botany in the fields, pharmacy and dispensing at the counter. To attempt to cram these subjects would be absurd ; and is not attempted. But there are facts connected with them which may as well be crammed as acquired in a more respectable fashion. The student may learn that hydrogen is an element in 10 seconds : he would not know the fact better if he took 10 days to think over it. And whether acquired knowledge be ephemeral or not depends, not on the length of time occupied in attaining it, but on the subsequent occasions for using the knowledge. The barrister professedly "crams" a subject for a trial in which he is engaged : for a brief hour or two he appears as an authority on that subject. A year after he has forgotten all about it. But this is because he had no further use for the information, and it is to his interest to clear it out of his mind as thoroughly as possible. If from the day of the trial he had made the subject the business of his life, his crammed knowledge would have been as useful and as permanent as if he had got it from a six-months' course of lectures.

Dr. Attfield's pamphlet will unavoidably excite discussions such as these, which do not really affect the question of a curriculum. But it is written with the object of really serving the trade, and its tone of healthy vigour is inspiring, and will do us all good whether we fully coincide in the views expressed or not.

Dyeing and Tissue-printing. By W. Crookes, F.R.S.

London : George Bell & Sons.

THIS volume opens a new series of technological handbooks, which are in course of preparation under the editorial supervision of Mr. H. Trueman Wood, the Secretary of the Society of Arts, and which are intended to serve as convenient guides to students and workmen attending one or other of the technological classes, or preparing for the technological examinations of the City and Guilds Institute. Mr. Crookes is a well-known authority on dyeing-processes, and in this handbook, while he explains all processes *ab initio*, he gives a great number of recipes for dyeing cotton, linen, jute, wool, and silk, and for tissue printing, which must make the work useful to most men actually in practice, as well as to students. The technical terms of the dyeing trade are made familiar, and a very good summary is given at the end of the book of the means of detecting colours in fibres.

Examination Questions on the Medical Sciences. Selected and arranged by James Greig Leask, M.B. London : Baillière & Co.

UNDER the above title we have a volume of 113 pages, containing classified and alphabetical series of questions, which, as we understand, have been actually asked at medical examinations on the subjects of anatomy and physiology, botany, hygiene, medical chemistry, medical jurisprudence, medicine and pathology, midwifery, physics,

surgery, and zoology. The book would have been more interesting, and possibly more useful, if corrected answers to the questions had been adjoined.

Elements of Pharmacy, Materia Medica, and Therapeutics. By William Whitla, M.D., &c. (London : H. K. Lewis).

THE title of Dr. Whitla's work indicates that it is originally intended for the medical student and practitioner, but the summary of its contents which we shall give will show that it is of a character which can fail to interest both to the embryo and the developed pharmacist. The author has not by any means aimed to another to the numerous compilations of *Materia medica* and its allied subjects which one professor after another finds it necessary to put into print. His book does not place nor in any way compete with these. His aim appears to have been rather to convey in methodical form abundant and useful information in regard to *Materia medica*, and therapeutics which those who occupy themselves with medicines must get acquainted with some extent, but which, as a rule, is only picked up as result of varied experience.

The first eight chapters of the book are devoted to processes of dispensing. Many of the hints are elementary, and some few are of questionable correctness. All dispensers, however, can find something new in suggestions here given, and the most accomplished feel interested in comparing notes with the author in regard to their daily occupation. The novice, who as also to thought of, will also be grateful for the detail of the movements of the dispensing art which he will find here.

We said that some few of the suggestions were of questionable accuracy. The points referred to matter on which two dispensers are likely to have different methods. As proprietors of medicine-measures we should not care to see an assistant balancing one square made by his forefinger with the thumb behind the measure as shown in fig. 3 ; nor do we think it a desirable accomplishment for a dispenser to carry the measure and prescription around with him as he collects the ingredients suggested by fig. 5. Dr. Whitla urges a rule of importance that "if there be a substance like prussic acid, strichnine, aconite, arsenic, corrosive sublimate &c., ordered in a mixture, it should be put in the last third before filling unless there be some reason to the contrary." This is obvious, for if this be a dispenser habit or the possibility of his putting it in twice out of question ; and often when the attention is unavoidably arrested the ablest will forget what he has just accomplished. The rule suggested seems to us calculated to ensure certainty of having the poison in at least one dose, but we not see how it is going to protect the patient from having a double portion of the poison in consequence of the hypothetical absent-mindedness, especially as exceptions to are to be admitted. The chapter headed "General Hints to the Dispenser" is a particularly useful one in its section.

Official Pharmacy is next treated. The various processes are first described and explained, and new concoction Preparations are grouped and compared. There is some originality in this section, a paragraph describing the characteristics of &c., of the various pill-masses of the Pharmacopœia.

After a few blank pages for memoran Materia Medica section. The paragraphs condensed, the substance or preparation being briefly described in the Pharmacopœia, with an occasional desire, and with indications of the remedial use. Accounts of the sources and of the chemistry of the substances are not included, except in the briefest manner. Seven pages in distinction for a brief notice of about fifty "non-official remedies."

The section on Therapeutics is perhaps the most important of all. The medicinal action of remedies is treated in a concise and instructive manner. The author draws on his own experience, a well posted in modern medical literature, formulae which will wonderfully aid the reader, and particular attention is given to the treatment by any of the substances included in the Pharmacopœia. The information, given under the head of Therapeutics, is to some extent lost for want of an index.

There is a very good index to the other information in the book.

Part I is on the Administration of Medicines, and deals with the art of prescribing. In this section a few good facsimiles of prescriptions are given, which, we must be said, are far above the average in caligraphy. Two or three ordinary specimens have been added. The last section of this comprehensive and carefully-arranged work is a view of Pharmaceutical actions and tests. The volume contains over 500 pages and each page is well filled. We congratulate the author on having added a really useful book to the library of pharmacy. Unlike many other works of the same class, a great part of this will be read by anyone concerned in pharmacy, and not merely kept for reference. The author occasionally dissent from Dr. Whitla's ideas, but we believe a very accomplished one who will not gather valuable advice from the treatise, and the novice will read admirably marked out for him by it.

WYLER BLYTH, M.R.C.S., public analyst for Marylebone, is preparing a work on "Poisons: their Effects and Preparation," which will shortly be published by Messrs. C. & C.

With the completion of a work to which, during the course of its publication, we have frequently made reference, Spon's Encyclopaedia of the Industrial Arts, Manufactures, and Commercial Products" has been published in parts by Messrs. E. & F. N. Spon, each part selling for 10s. The entire work consists of 2,142 royal octavo pages, 30 of which, we are glad to see, are devoted to a very exhaustive index. The first ten parts were edited by Mr. G. C. Spon, the remainder by Mr. C. G. Warneford Lock. Evidence of a considerable number of practical writers have been omitted in this work, and the result attained is, as a rule, a complete account of the various manufactures. A considerable proportion of these are those in which our constituents are interested. We may mention, among the general subjects (which are, of course, subdivided), Acids, Alkalies, Alcohol, Beverages, Beeswax, Brushes, Candles, Coal-tar Products, Rubber Manufactures, Matches, Mordants, Narcotics, Photography, Resins and Gums, Soaps, Varnish, &c. There are numerous shorter articles on single products, such as Borax, Camphor, &c. The articles are well illustrated, and to each subject is added a summary of the bibliography on it, if further reference is needed.

Personalities.

T. A. RAIN, chemist, Allen Street, Sheffield, was a guardian of the Sheffield Union on April 13.

Personal estate of the late James Hunter, chemist, amounted to 5,744l. 9s. 7d.

E. OSBORNE, proprietor of Osborne's golden druggists, has removed from 26 to 5 Thavies C.

GEORGE MILL, from Duncan, Flockhart & Co., has opened a new pharmacy at 1 Brandon Terrace, Edinburgh.

WILLIAM BURLEY, for many years manager to the Mr. John Mackay, has recently opened a new pharmacy in George Street, Edinburgh.

A business of the late James Hunter, Aberdeen, has been purchased by Mr. John M. Munro, of Nicholson Street, Edinburgh, whose business has passed into the hands of Mr. Plummer & Co., London.

WILLIAM WHYTE has retired from the firm of Bros. Co., Trongate, and commenced business at 100, Buchanan Street, Glasgow.

Scientific Notes:

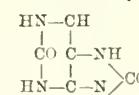
On Chemistry, Pharmacy, Botany, Materia Medica, &c., Original, Selected, and Translated.

CONVERSION OF XANTHINE INTO THEOBROMINE AND CAFFEINE.*

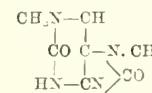
A DIRECT relationship between xanthine, guanine and sarkine, on the one hand, and theobromine and caffeine on the other, has long been suspected. Emil Fischer has now proved this relationship to exist by converting xanthine into theobromine and caffeine.

Xanthine-lead heated to 100° C. for 12 hours in a sealed tube was converted into lead iodide and theobromine. This decomposition proves that A. Strecker's original theory was right, viz., that theobromine and caffeine are di and trimethyl compounds of xanthine.

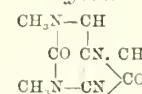
Xanthine.



Theobromine.



Caffeine.



From the above it appears that guano and substances of a like nature will probably form the chief future source of caffeine.

BASIC MAGNESIUM ACETATE.†

W. KUBEL prepares basic magnesium acetate by digesting an aqueous solution of magnesium acetate with magnesium carbonate.

The author states that the salt is possessed of considerable antiseptic, disinfective and deodorising properties. He suggests its use in perspiration of the axilla and feet, for which it is an excellent and harmless remedy.

A solution of basic magnesium acetate is very difficult to dry completely, and can be brought to almost any degree of concentration by evaporation.

PREPARATION OF LACTIC ACID FROM DEXTROSE, INVERTED SUGAR, &c.

In a further paper on the preparation of lactic acid from dextrose, &c., sent to the "Berichte der deutschen chemischen Gesellschaft," March 27, 1882, Heinrich Kiliani describes several modifications of his method (see this journal, 1882, page 133), the essential features of which are subjoined.

I. The best raw material is inverted sugar. Commercial glucose (dextrose), prepared from starch, admits of being used, but the percentage result is not so good.

II. Caustic soda is preferable to the potash salt, partly on account of its greater cheapness, and for the reason that the greater part of the water employed in the solution of the substances mixed, enters into combination with the sodium sulphate produced, in the form of water of crystallisation.

III. It is not advisable to neutralise the whole of the alcoholic solution with zinc carbonate, because the zinc salt which is formed together with zinc lactate either does not crystallise at all or only with difficulty, and impairs the crystallisation of the latter, whereas the free acid of that salt does not exert any injurious effect.

Further. Alcohol of 93 per cent. is employed, and the mixture of sulphuric acid and water should be in the pro-

* Berichte der deutschen chemischen Gesellschaft, March 13, 1882.

† Berichte der deutschen chemischen Gesellschaft, March 27, 1882.

not long ago proved that more than 50 per cent. of carbolic acid and diseased noses. When the disease sets in first in the nostrils, it is tickling in the nose; a week or so after it has spread, there is no discomfortable sort, and thus the hole is formed almost without pain. There are, it is said, six works of the kind in the world—three in Glasgow, Scotland, one in Russia, in Austria, and one in England. It would be interesting to know whether the same trouble has ever been experienced outside of Russia.

DISCOVERY OF A PROCESS FOR THE SYNTHESIS OF QUININE.

M. J. LAUMENE has addressed to the President of the French Academy a sealed packet containing an account of his researches for the synthesis of quinine, the following note:—
"Discovery of H₂N has enabled me to realise a synthesis desired by all chemists, and for which the Society's Government has offered a prize; namely, the synthesis of quinine. I will communicate immediately to the Academy the results of the very simple operation whereby H₂N yields the sulphate of quinine, if it were not that I wish to withhold it from medical tests. All the properties of sulphate are identical with those of the sulphate present in quinone."

Poisoning Cases.

ADDIA.—On April 14, at Dublin, Mrs. Radford, quarrelled with her husband, drank some belladonna. The label bore the word "Poison" and a skull and cross-bones.

ROMIC OF POTASH.—Annie Burger, 24, polisher, at Warwick, on May 9, with an attempt to kill her two children by giving them a solution of potassium. The defence was that she was her victim from the effects of the same poison to such an extent that she was irresponsible. She was acquitted.

CARBOLIC CID.—On April 8 Charles Gibson committed suicide by taking carbolic acid. He had been suffering from melancholia for two years.—By the same Letitia M'Manus, 24, committed suicide at Liverpool on April 10, d Phoebe Humphreys, 28, on April 15.—While under the influence of drink Charles Haw, of Mount Vernon, some id at a neighbouring chemist's, and poisoned with

IDE.—The wife of a travelling photographer poisoned with "chemical poison" at Derby on April 15.

EFFECTING FLUID.—Mrs. Meredith, by mistake, took disinfecting fluid at Pontypridd on April 15. She died under the treatment of Dr. Rees Hopkins.

ROCYANIC ACID.—A slaughterman at Ross (Herefordshire) named Watson, having had a difference with his master, left his situation. A few days after he met a chum street, and asked him if he could get him some stuff to get rid of his master. The latter, after some persuasion, lent him a veterinary surgeon, named Joseph Smith, to lend him some chloroform. He had Watson have this on his statement that he was going to his home near Ledbury where the dog Watson poisoned himself with the acid. The jury deduced that he did it under temporary insanity, but they sent both the veterinary surgeon and Watson's friend to prison to pay for their possession.

INE.—James How, an old pensioner, attempted to commit suicide at Shrewsbury by swallowing iodine liniment. He was charged with the offence at the police court.

DANUM.—Mr. Wm. Robbins, a butcher, at Worksop, was found poisoned with laudanum, obtained from W. O. 19 Haymarket, Sheffield.

LEAD ACETATE.—Mary Shorter (29) was charged at Edinburgh, on May 3, with attempting to poison her husband by administering to him sugar of lead in some soup.

LINIMENT.—Edward Davies, Chorlton-on-Medlock, on April 16 took some liniment by mistake for medicine, and died in consequence.

MERCURY.—Charles Phelps, umbrella manufacturer, on May 2, while under the influence of drink, mistook a mixture of quick-silver and oxalic acid for beer, and died in great agony a few hours later.—On April 18 Ann Michael died from the effects of corrosive sublimate. She stated that she had taken some poison used for maggots by her master, a farmer, who had kept it locked up.

MORPHIA.—Dr. T. A. Elias died at Southport on April 11 from the effects, it is believed, of morphia poisoning. The post-mortem appearances supported this idea, which was adopted by the coroner's jury on April 13.—Mr. Samuel Naylor died at King's Cross, London, on April 13, from the effects of a narcotic.

OPIUM.—Mr. H. E. Prockton, artist (34), took by mistake an overdose of opium which he had been accustomed to use for insomnia. He died on April 21.

OXALIC ACID.—Geo. Critchley, 55, died at Liverpool on April 19. A packet labelled oxalic acid was found at his side.—John Leckie and his two children had a narrow escape on April 30. Intending to take an effervescent draught the father mixed some sodium bicarbonate and salts of sorrel, imagining that the latter was tartaric acid. They recovered under treatment.

PHOSPHOR PASTE.—The *Brit. Med. Journal* records a case at the free hospital of a young girl, aged 18, who, four days before admission, had taken some phosphor paste in broth. She did not vomit till nearly 20 hours after taking the poison. She suffered with headache and liver disease, and a rash had come out on her face. At the hospital she was treated with mucilaginous drinks and magnesia, and fed with beef-tea, eggs, and brandy, and fomentations applied to the abdomen. Two days after admission she suddenly collapsed, and died.

STRYCHNINE.—At Pitgaveney, Morayshire, on April 12, pieces of swede turnip, on which strychnine had been placed, were scattered in a wood apparently for the purpose of destroying game. A number of rabbits were poisoned.—Mr. R. Cockburn, M.R.C.S. (*British Medical Journal*, April 22, 1882) reports a case of poisoning by strychnine which he successfully treated in India. A healthy Mahomedan, aged about 25, had taken from a strychnine bottle, believing it to contain quinine, about as much as he thought was a dose. The poison was taken at about 8 A.M. The doctor saw the patient about 11 A.M. He was complaining of a severe burning in the epigastrium, and spasms of the muscles of the back and legs had set in. Free vomiting was induced by two doses of ipecacuanha powder, $\frac{1}{2}$ drachm each, at 10 minutes interval, with copious draughts of warm water. After this, the tetanic spasms continuing to increase, at 3 P.M. inhalations of chloroform were commenced, which soon relieved the spasms and induced sleep for about an hour; on awaking, the spasms returned, and chloroform was again administered with the same good effects. At 7 P.M. the spasms had much decreased in frequency and force. Chloroform inhalation was continued at intervals till about midnight, by which time the spasms had nearly ceased, and by morning completely so, his only complaint then being of pain and soreness in the muscles of the back. The man was perfectly conscious throughout. He was believed to have taken about 2 grains of the poison.

VERMIN-KILLER.—A miner named Cullen was committed for trial on May 4, for attempting to poison Shepherd Holden, at Oswaldtwistle, by mixing rat poison with his tea.

At Inverness, on Good Friday, one baker sold about a thousand buns which caused symptoms of irritant poisoning in those who ate them. No fatal cases occurred. The poison seems to have been traced to some mixed spice purchased in Aberdeen. Dr. Duncan Mackay, medical officer of health,

believes that he has discovered arsenic in the buns, but we have not yet seen the report of the official analyst.

A gentleman named Thos. Hatton and his gamekeeper were convicted last month at Harewood End Petty Sessions (near Ross, Herefordshire) of having laid poisoned meat about for the purpose of killing some of the farmers dogs in the neighbourhood, which disturbed his game. The fines inflicted by the magistrates and the costs amounted in all to 21*l.* 8*s.* 6*d.*

ALLEGED POISONING BY WINSLOW'S SOOTHING SYRUP.—The *Canadian Medical Journal* quotes from the *Sanitary News* the statement that a child eight months old had been killed by the administration of a teaspoonful of Mrs. Winslow's soothing syrup, "the symptoms of poisoning by morphia being well-marked." The journal adds that analyses of this dangerous nostrum have shown that each ounce of the syrup contains one grain of morphia, so the dose, according to the directions on the bottle, for a child eight months old, contained one-eighth of a grain of morphia. It is about time that legal proceedings should prohibit the sale of such dangerous compounds, when advertised as inoffensive.

This is a repetition of assertions published ten years ago in an American medical journal which drew from the London agents a flat contradiction. To settle the matter we submitted several samples to a competent analyst, and the result of his experiments was published in this journal in March, 1873. By more than one method he came to the conclusion that if it contained any morphia at all, which he did not believe, it could not be so much as 3 grains in a bottle, or one part in 3,000. The tests he used would have easily detected such a quantity as this.

The *Medical Times and Gazette*, March 25, records a case of poisoning by white precipitate, which came to the Royal Free Hospital, and was under the charge of Dr. Cockle. The patient, a man about 40, had taken the contents of a penny packet 24 hours before he came to the hospital. His tongue was swollen, furred, and blistered, and he had pain in the abdomen. Frequent vomiting and purging through the night. He was kept in a warm bed, and given ammon. carb. gr. v., sp. ammon. arom. 5*ss.* and liq. chloroform 5*j.* every four hours. After a day or two symptoms of salivation set in, for which he was treated with pot. iodid. gr. v., inf. quassiae 5*j.*, three times daily for a week; then liq. ferri was substituted. He was under treatment in the hospital for 14 days.

Obituary.

CAMPION.—On April 18, 1882, Mr. R. Campion, chemist and druggist, Harlow, Essex. Aged 44 years.

CAMPION.—On March 18, 1882, Mr. Robert Campion, chemist and druggist, High Street, Harlow, Essex. Aged 44 years. Mr. Campion had been a member of the Pharmaceutical Society since 1871.

FALSHAW.—On March 18, 1882, Mr. John Falshaw, chemist and druggist, Haslingden, Lancs. Aged 60 years.

PARKER.—On April 7, 1882, Mr. William Parker, chemist and druggist, Cheapside, Lancaster. Aged 31 years. Mr. Parker had been an associate of the Pharmaceutical Society since 1870.

CHESSHIRE.—On April 13, 1882, Mr. Albert Bell Chesshire, chemist and druggist, of 378 Coldharbour Lane, Brixton, and 88 Rye Lane Peckham. Aged 37 years.

HARRIS.—On April 16, 1882, Mr. Robert Clabon Harris, chemist and druggist, Aldershot. Aged 63 years.

WYLEY.—On May 2, at his residence, Sandown, Isle of Wight, Mr. John Wyley, of the firm of Wyleys & Co., Coventry. In consequence of failing health he had not of late years taken a very active part in the management of the business, but all who were personally acquainted with him will sincerely regret his loss. The business of the firm will be continued by the surviving partners, Messrs. Francis Wyley, William Fitzthomas Wyley, and George Walker.



MUSTARD AND THE SALE OF FOOD AND DRUGS ACT.

At Jedburgh, Scotland, on April 13, before Sheriff Rus, three grocers were prosecuted under the Sale of Food and Drugs Act for having sold as mustard $\frac{1}{4}$ -lb. anisters Colman's mustard which was not the substance asked for. One of the defendants when told that he must purchased was for analysis, pointed out notice on the side of the tin: "This is sold : a mixt of pure mustard, farina, and choice condiments." The cases were defended by Messrs. Colman, and the evidence was given by Mr. Robert Hazlewood manager their works at Norwich. They employed nearly 2,000 people and were the largest mustard manufacturers in the world. The objections to pure mustard were of two sorts. First, the grocers objected to it, as, in consequence of the oil it contained, it would not keep more than perhaps three months without becoming lumpy. The oil, unless absorbed by means, was apt to ferment and the mustard suffer as flavour. The second objection came from consumers. Mixed mustard when made up would keep for a week, while pure mustard would become dark and unpleasant to the sight in the course of 24 hours. Besides, it was more palatable. The pure article had to be eaten with care, otherwise it would cause uncomfortable sneezing, its strength was apt to overpower the flavor of the mustard. The firm sent to Scotland before the passing of the Act about 6 per cent. of genuine mustard, but after the passed it rose to 47 per cent. It had, however, greatly decreased, and now very little was sold except in bulk retailled in small quantities. This kind of inferior quality, and sold at a cheap rate. The reason set out this kind was that grocers did not like the trouble of labelling small quantities, and were nothing but the qualities sold the poorer classes would not be able to buy. They did a large trade with Australia and America, and would be impossible to send it to Australia good unless it was mixed, in consequence of the heat, as it had to cross the line. Mr. Colman always used the mixed mustard at table, and as he had had the honour of entertaining Prince of Wales to dinner, they might be surprised to produce the best to him. The Government used the mixed mustard in the navy, but rice flour was put in that instead of wheat flour. All the different varieties were called mustard, known to the trade as such. Every package labelled that purchasers may know what they are getting. In places in England nothing but mixed is sold. It is no matter of economy that the flour is used. The flour is the finest quality, and very carefully prepared, and the chaser of the mixed has as good value as he buys unmixed.

Several wholesale grocers gave confirmation that the Sheriff dismissed the summonses, saying it was evident that when a customer asked for mustard he expected to get it mixed unless he asked for pure speckled mustard.

Two cases of alleged adulteration of mustard were tried at Bedford on the 1st inst. Dr. Prior, the barrister, had certified that one sample contained mustard, 19 per cent. of wheat flour, and 81 per cent. colouring matter. He had not, however, weighed the sample as he had not scales sufficiently large. He had examined it with a microscope, and also tested it with iodine. F. Sutton was called for the defence, an analysis showed 92·04 per cent. of mustard, 6 per cent. of wheat flour, and 3 per cent. of turmeric, being added absorbed the fixed oil and preserved. The aromatic flavour of the mustard was preserved in this mixture, and he considered the taste superior.

I would blister the skin. Mr. Haslewood, from Messrs. just
olm's mustard works, said that they could only sell pure
ust among the miners and such people of the North.
olm
ust The Counsel for the prosecution said that after the facts
ust which had come to light he could not continue the prosecution,
ust and therefore asked leave to withdraw. The magistrates
smi d the case, allowing defendant four guineas costs.

A MIDNIGHT CUSTOMER.

At the Central Criminal Court on the 4th inst. a policeman
Guthrie was charged with having burglariously entered
the house of Mr. Eli Marshall, a chemist and druggist, at Mortlake Terrace, Sheen. Mr. Marshall's shop
had been robbed, and a few nights after he and three
end sat up expecting another visit. The constable
like into the trap, and was caught at the till. He was sentenced to 18 months' imprisonment with hard labour.

A MUSCULAR PHARMACIST.

WILLIAM HENRY STACEY, chemist and druggist, of whom met his brother-in-law, Mr. J. T. Hutchinson, an apothecary, at an inn, kept by the father of the merchant, a quarrel arose, and the chemist somewhat unmercifully assaulted the analyst. A police-inspector appeared, and the report says that Stacey "seized him by the hair and threw him over his shoulders"—a method of attack which might have taken Tom Sayers by surprise. The scene at the Bury Police Court cost Mr. Stacey £5. 10s., besides having to provide sureties.

THE MEDICAL AND GENERAL STORES (LIMITED).

NOTIFICATION to compulsorily wind-up these stores came before the Chancellor Hall on May 5. An order had been made for a voluntary winding-up, on the understanding that the liquidator should carry out an arrangement to pay the creditors in the pound. This he was not doing, and the consequence made the present application. His ship gave time to allow affidavits to be answered.

TRADE-MARKS ON AERATED WATER BOTTLES.

The case of Talbot v. Brereton came before Mr. Justice North in the Chancery Division of the High Court, on an interlocutory motion. Plaintiff and defendant both aerated water manufacturers at Ipswich. An agreement had been made between the parties to exchange bottles of each other, but it appeared to have not been fully carried out. The question was whether the defendant had the right to use the bottles of the plaintiff on which was registered the plaintiff's registered trade-mark, if he (the defendant) put his own label on the bottles. The defendant argued that plaintiff had used some of his (defendant's) which it was answered that if it were so, had the same legal remedy as plaintiff had. Defendant's counsel offered an undertaking in this regard, but plaintiff's counsel pressed for an injunction. Mr. Justice North said his impression was that plaintiff was right; and if the evidence at the hearing exactly what was before him, he had no doubt plaintiff would succeed. As this was an interlocutory however, he would prefer to order a mutual in the terms asked for until the hearing.

THE PHARMACY ACT.

of the Pharmaceutical Society, on April 18, before Mr. Day, judge, on April 18, William Day, trading as Southampton Drug Company, High Street, Southampton, appeared for the Council, and Mr. Bell for defendant. Mr. Bell called the defendant as an adverse witness. In answer to his questions, Mr. Day stated that he had been in Southampton eight years as a grocer till December 1879. From then till December 31, 1880, a partnership existed between him and a Mr. Thomas, but he is only a sleeping partner. On December 31,

1880, Mr. Thomas left the business, and for some hours he (witness) was sole proprietor. He sold the business the same day to Edward Thomas Pritchard, who was a registered pharmaceutical chemist, but did not now reside in Southampton. Mr. Pritchard paid 100*l.* down for the business, and the balance was to be paid by acceptances, all of which had not been met. The witness denied the suggestion that Mr. Pritchard had only purchased a share. He (witness) had signed cheques by procuration, and ordered goods in Mr. Pritchard's name. Mr. Pritchard had gone to Edinburgh to qualify as a medical man, but had left a registered chemist and druggist to manage the technical part of the business. Mr. Pritchard had taken part in the business for about ten months, and had been absent about four months. The witness admitted that at the last Revision Court he had claimed a vote in respect of the premises, but Mr. Bell described it as an ordinary political subterfuge.

The sale of some oxalic acid, and the preparation of a prescription containing strychnine were proved.

Mr. Bell submitted there was nothing to show that defendant was the proprietor. Further he submitted there was no proof that it was oxalic acid or strychnine that had been sold, and he contended there ought to have been scientific evidence to prove that point. The only thing was that an old label bearing the name of Thomas & Co. had been put on the packet of oxalic acid. Unless his Honour thought the defendant had committed perjury he could not say it was his business.—His Honour said he should adjourn the case for the attendance of Mr. Pritchard.—Mr. Bell remarked it would cost 10*l.* to get Mr. Pritchard, and the penalty that could be recovered was only 5*l.*—Mr. Shenton, as the defendant was not prepared to bring Mr. Pritchard to the court, asked his Honour to give judgment.—His Honour said he should reserve the point till the next court.

At the next court day his Honour gave judgment in favour of the plaintiffs. It was admitted that Mr. Day had signed all cheques and orders, and he could come to no other conclusion than that he was the proprietor of the shop.

CASTILE SOAP.

ON April 12 and 13, in the Chancery of Lancashire, G. A. Phillips, trading as D. A. Thoms & Co., sought an injunction to restrain R. W. Harrison of Oldham from offering for sale "Castile soap" not manufactured by plaintiff. Phillips alleged that in 1867 D. A. Thoms & Co., in which he was a partner, invented, and have ever since sold, a pale yellow perfumed household soap which they introduced as Castile soap, and put it up in pound bars, stamped with their name and trade mark (a bull and a matador), and wrapped in a coloured label bearing the words fine Castile soap, David Thoms & Co. The Castile soap, which had been known many years before 1867, was a mottled soap, which could not be confounded with the plaintiff's. Last June Phillips learnt that the defendant was selling a similar soap, stamped in his own name and trade mark (St. George and the Dragon), wrapped in a box bearing his own name, and put up like plaintiff's in 1 lb. bars. He considered that this was an infringement of his right, and applied for redress.

The Vice-Chancellor, without calling upon defendant, decided that there could be no right to the title Castile soap, that there was no proof that the public had been deceived into buying defendant's soap thinking it was plaintiff's, and therefore that there was no wrong to be redressed. Judgment for defendant with costs.

A DRUG COMPANY IN NEW ZEALAND.—The annual meeting of Messrs. Kemphorne, Prosser & Co.'s New Zealand Drug Company (Limited) was held at Dunedin on March 8. The report showed a net profit of 10,078*l.* 19*s.* 10*d.*, out of which a dividend of 10 per cent. on the paid-up capital was declared, which absorbed only 3,877*l.* 7*s.* 4*d.*, leaving 6,201*l.* 12*s.* 6*d.* to be carried forward. Much satisfaction with the progress of affairs was expressed by the shareholders. The report mentioned that sulphuric-acid works were in operation, and that the Government bonus of 500*t.* for the first 50 tons manufactured in the colony had been earned and would be promptly paid. The company are also manufacturing muriatic acid, and have the plant ready for making nitric acid. They now intend to go into the manufacture of artificial manures.

BANKRUPTCIES AND LIQUIDATIONS.

JAMES BERRY, Atherstone.

THE debtor, described as a chemist and druggist, of Atherstone, in the county of Warwick, filed his petition for liquidation at the Birmingham County Court on April 13, with liabilities estimated at 2,730*l.*, and assets not yet ascertained. Upon the application of Mr. Frank H. Pogmore, of Atherstone, solicitor for the debtor, the Registrar appointed Mr. Thomas Kiddle, of Hinckley, in the county of Leicester, public accountant, receiver of the estate.

JAMES CHAMBERS, Chemical and Varnish Manufacturer Fenchurch Street.

AN adjourned meeting for the examination was held in this case on April 22, before Mr. Registrar Murray. The bankrupt had traded as above, and at numerous other addresses, under the firm of "James Chambers & Co.," and as "Mason, Mortlock & Co." He furnished accounts disclosing liabilities to the amount of 13,663*l.* 12*s.* 1*d.*, and assets 285*l.* 17*s.* 2*d.* Mr. Pritchard appeared for the trustee, and said that he was instructed to consent to the bankrupt passing his examination. The bankrupt passed accordingly.

EDWIN FISHER, Ashton-under-Lyne.

THE first statutory meeting of the creditors of Edwin Fisher, of Ashton-under-Lyne, chemist and druggist, was held on April 19 at Manchester. The statement of affairs showed liabilities to unsecured creditors, 3,552*l.*; creditors fully secured 21*l.*; creditors partly secured, 1,885*l.*; other liabilities, 30*l.*; total unsecured liabilities, 4,252*l.*; and net assets, 1,489*l.* It was deemed advisable to wind up the estate in liquidation, and Mr. Eckersley was appointed trustee with a committee of inspection.

HARRISON & YOUNG, Manufacturing Chemists, West Ham. THIS failure occurred in January, 1880, and Mr. Parker, on behalf of the trustee, applied to the Court on April 27 for an order closing the bankruptcy. It appeared that a dividend of 3*s.* in the pound had been paid on the joint estate, and the separate estates had also yielded small dividends. There was no objection, and Mr. Registrar Brougham made the order.

JOSEPH MOYLE, Chemist and Druggist, Broadway, Hammersmith.

THE debtor, who filed his petition for liquidation on April 25, estimates his liabilities at 12,030*l.*, the following being returned as creditors, secured and unsecured:—

	£	s.	d.
Bockett & Son, 60 Lincoln's Inn Fields	400	0	0
Bowling, Morden & Bowling, Essex Street, W.C.	17	2	6
Brand & Co., Little Stanhope Street	14	8	2
Chamberlain Brothers, Hammersmith	200	0	0
Chapple, Welch & Chapple, Carter Lane, E.C.	40	0	0
Chapple, J. (for clients), Carter Lane, E.C.	457	3	0
Edwards & Son, Queen Victoria Street	247	12	0
Faber, Mrs., care of 60 Lincoln's Inn Fields	5,626	0	0
Glover, —, Brook Green Road, W.	10	0	0
Hawes, — (trustees), care of Chapple & Co., Carter Lane	1,783	15	0
Holcombe, J. S., Bedford Row, W.C.	15	0	0
Humphrey, Taylor & Co., Stanfeld Street, S.W.	32	4	0
Hill, Son & Co., Southwark Street	11	15	3
Hutchins & Crowley, Old Broad Street	10	0	0
Hearon, Squire & Franks, Coleman Street	1,136	0	0
Izard, J. J., Dalston Lane	11	0	6
Larkin, F. R., Lincoln	1,537	10	0
London and Provincial Bank	83	15	0
Maw, Son & Thompson, Aldersgate Street	65	16	9
Meacock, —, King Street, Hammersmith	10	0	0
Meggeson & Co., Miles Lane, E.C.	10	5	0
Rixons, —, Old Broad Street	14	19	10
Silverlock, H., Blackfriars Road	96	0	0
Toynbee, Larken & Toynbee, Lincoln	49	15	0
Tarrant, C. A., Ladbrooke Grove Road, W.	11	0	0
Ward, J. R., Russell Gardens, Kensington	22	0	0

The first meeting takes place on May 16, at the offices of the solicitors, Messrs. Bockett & Son, 60 Lincoln's Inn Fields.

G. & G. PARKER, Manufacturing Chemists, 13 Wardour Street, W.

A FIRST meeting was held in this case on the 10th instant before Mr. Registrar Hazlitt. The bankrupts, so far as on business under the style of "James Rea & Co.," filed a petition for liquidation on February 27, and a composition of 4*s.* in the pound, payable by certain instalments, was accepted, but the resolutions were not registered, and a adjudication was made on April 26, upon the petition of Mr. G. C. Boor, wholesale druggist, 1 Artillery Passage, Bishopsgate. A statement of affairs was furnished, showing unsecured debts 2,320*l.* 12*s.* 10*d.*, debts fully secured 250*l.*, and preferential claims, 30*l.*; assets, 736*l.* 0*s.* 6*d.* Proofs of debt amounting to 1,931*l.* 10*s.* 7*d.* were admitted, and Mr. G. C. Boor, of 1 Artillery Passage, and Mr. W. A. Duncan, of 59 Vauxhall Road, were appointed trustees, together with a committee of inspection consisting of Mr. G. F. Clarke, 1 Bury Street, St. Mary Axe, and Mr. J. Giles, 116 Fleet Street. Next meeting, June 9.

W. PUZEY, Luminous Paint Manufacturer, Queen Victoria Street and Aldermanbury Postern, E.C., at Kimberley, South Africa.

THE statement of affairs disclosed liabilities to the amount of 35,055*l.* 15*s.*, and assets 25,496*l.* 17*s.* The creditor agreed to accept a composition of 12*s.* in the pound, payable 2*s.* 6*d.* in three, six, and nine months, and 4*s.* 6*d.* 12*s.* from the date of registration (the last instant to be secured). Mr. John Young, accountant, 41 Conduit Street, was appointed trustee. On April 29 the resolutions were ordered to be registered.

Foreign and Colonial.

PATENT MEDICINES IN BELGIUM.—The Belgian Academy of Medicine has been latterly much occupied with the discussion of the precautions desirable to regulate the sale of foreign patent medicines in Belgium. The Government is about to publish a new pharmacopœia, and the occasion is therefore considered suitable one for the introduction of reforms in pharmaceutical legislation. Under the existing law the pharmacists may sell patent medicines which they have themselves invented, or those of which they know the composition, but they are forbidden to sell medicines of those compositions for which they are ignorant. M. Vleminckx recommends more stringent regulations, and the Minister of the Interior has intimated to the Academy that he intends to give special attention to the modification which it is desirable should be introduced into the Belgian medical laws.

CARDAMOM GROWING IN CEYLON.—If all the we have the success which has attended the cultivation of cardamom in the coffee districts of Ceylon be really stworldy mean, of course, if it should stand the test of experience a large scale, then indeed proprietors who half inclined to despair at the short coffee heart of grace, and definitely adopt the conclusion this and other new products, Ceylon is by means ploughed out yet. Cultivated Ceylon cardamoms are the London market, and the supply might increased without bringing down the price to a considerable extent. Now we have it on the authority of Ceylon planter, who has 16 acres of cardamom growth, that the yield on good soil is about a acre, which at present rates would give a 55*l.* 5*s.*, or say 40*l.* per acre net. Even estimate by 2, there would still be a good margin and contingencies. We shall be glad to hints as to the best varieties, methods selection of soil, elevation, aspect, &c. Gazette.

CAMOMILE FLOWERS.—Professor Lander writes to us from Athens:—"These grow abundantly and are at present in great demand in the English and German markets."

(Botanolozer, or Rhizolomer, as Hippocrates was 100 years ago) would go out to Athens at the proper time, as he might employ poor women and girls to pick flowers which could be dried in the sun. Dr. Landerc seems to think he could make a good sample of the flowers, which we shall be happy to submit to any philhellens of an enterprising nature. Greek camomiles are necessarily more aromatic than those of more northern climates, as it is well known that aromatic principles are developed under sunny skies; the cooler regions favour the development of bitter and other characters in plants. April is the season for picking the camomiles. The name camomile is derived from the two words, *chame*, lying down, and *myla*, apple, on account of the shape of the flowers, or from a resemblance in the odour. In Greece they are commonly known as Apriatiki laludia, or flowers blooming in

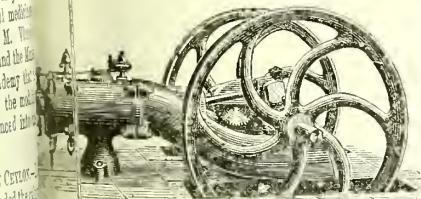
factory jerkings which were formerly the mode of motion, resulting in a smooth and much more perfect action.

A number of the "Crossley" engines are exhibited at the Crystal Palace Electrical Exhibition, and everyone must be struck with the adaptability of these machines for working the generators where the electric light is introduced into private establishments. It is an interesting probability that the electric light, when it has quite defeated and dethroned its rival—as it must do ultimately—will have to employ it as the slave for developing her own beauty and usefulness.



THE "OTTO" GAS-ENGINE.

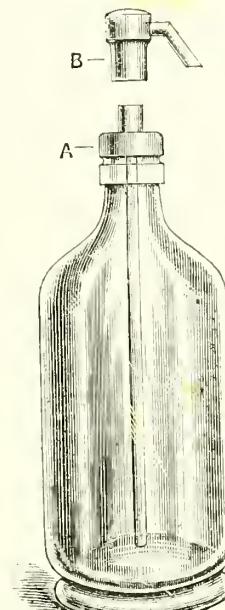
Ott and "Crossley" gas-engines, manufactured by Crossley Brothers (Limited), of Manchester, are in very general use, and are employed to great advantage, we know, by many aerated-water makers and manufacturers. The superiority of a gas-engine over a steam-engine in many industries is very obvious. No ash, no fires to attend to; no extra insurance to be paid to insure against explosion; no safety-valve to watch; the attention, of cleaning, and of repairs. As to the economy of a gas-engine over a steam-engine, we depend much on the extent to which the power is used. A gas-engine can be set going and stopped in a moment; a steam-engine wastes a certain amount of fuel, and is more costly in proportion to power to purchase. Saving in intermittent working must be considered. Gas, too, is a product which is likely to become



as a motive or heating power. Mr. Woodall, the manager of the Leeds Gasworks, has lately estimated that gas for purposes than lighting could be supplied at a cost not exceeding 11d. per 1,000 cubic feet. The cost of working even one of the small engines would be about 4d. per horse-power per hour, which puts steam out of the running. The intention of this "Otto" engine, gas-engines is to supersede the less satisfactory machines. The principle of their mixture of gas and air being introduced into the cylinder, the piston was thereupon shot out, exploded, the piston was therefore conducted by a series of work, was therefore conducted by a series of the piston. The principle of the patent now adopted is to produce a cushion of air between the piston and the mixture of gas, and this has the effect of so preventing the explosion that the gas and air are, as the inventors describe it, "gradually exploded," and a force is obtained in place of the unsatisfactory

WEST'S PATENT PARAGON SYPHON.

THIS invention will certainly excite considerable interest in the aerated-water trade. As may be understood from the engraving, the feature of the new siphon is that the opener is quite separate from the siphon as filled. The siphon is filled in the form shown by A very much in the ordinary way, but the patentees supply for this purpose a very simple, safe, and cheap little machine for filling; but when desired all the parts of the siphon can be taken to pieces and perfectly cleaned. The siphons thus filled are quite air-tight. An opener (B) is supplied with them, and this when fixed on the top of the siphon can be made to press down a valve, and thus allow of the flow of the gaseous beverage. An opener costs 4d. or 6d., and one is sufficient for a consumer to possess. The siphons themselves cost but little more than half the price



of the lever siphons generally in use. So that in respect of economy there is a considerable advantage. All the parts employed are cast so that any part will fit any bottle. The one defect which we notice in respect to this invention is that at present these siphons do not seem to be adapted for beverages in which it is required to introduce syrups. Mr. West says he is making arrangements to meet that necessity. Meanwhile, it is unquestionable that he has produced a siphon which, for soda, potash, and other aerated waters, offers advantages of cleanliness and economy which are worth the attention of the trade. The metal parts of the Paragon siphon are either of pure block tin or of a white metal nickel-plated; and all the parts are supplied separately.

Medical Gleanings.

BREVITIES.

For the following concentrated essence of recent medical literature we are indebted to the *Australian Medical Journal*:—

Cotton wool saturated with a mixture of equal parts of chloral and carbolic acid and allowed to dry, makes a good pledge for toothache.

For dissolving gall-stones the hydrated succinate of peroxide of iron, gr. x. ter in die in aqua menth. pip., is reported successful.

Five parts of carbolic acid dissolved in an equal quantity of alcohol, to which six parts of liq. ammon. and ten of water are afterwards added, makes a good inhalation in chronic bronchial catarrh.

For profuse diarrhoea Fothergill recommends am. carb. gr. v., Tinct. opii m. x., Inf. haematox 3j. every three hours.

Nitrate of silver, hypodermically 5 drops of a 1 to 4 solution, has cured sciatica; great pain follows, and a small abscess forms.

Professor Nussbaum advocates the passing of an act rendering the omission of antiseptic precautions in surgery criminal.

Professor Keith has given up the use of the antiseptic treatment. From using the carbolic acid so much he got renal haemorrhage himself. Lister himself has lately expressed his doubts as to its efficacy.

The ripe tomato is said to be curative of sore mouth, when eaten in the ordinary way.

Tincture of dogwood (*Piscidia Erythrina*) in 5ss. to 3j. doses is useful in shock with pain and for neuralgia.

Cascara sagrada is a favourite American remedy for costiveness.

The eucalyptus tincture, m. xx. every three hours, is valuable in chronic cystitis with haematuria.

Tincture of *Actinomeris Helianthoides* (gravel weed) in doses of 3j. to 5ii. every hour is useful in acute gravel.

From India Dr. Saunders reports the successful use of amylnitrite in ague. The drug is mixed with equal parts of oil of coriander to make it less volatile, and four drops are inhaled from lint till the patient gets flushed and warm; perspiration follows, and the attack is checked.

Quebracho ext. fluid, m. xx. to lx. every hour or two, is reported by Ringer as useful in dyspnœa.

Nerve-stretching has been suggested as a curative of tetanus.

Cinchonidæ (gr. 5) and tinct. ferri, mur. (m. xx.) in water every three hours is a good prescription for glossitis.

Picrotoxino has been found to produce an artificial epilepsy.

Amyl nitrite inhalation is a good antidote in opium-poisoning.

Chloro-phosphide of arsenic (m. 10 of Routh's solution) is useful in bay fever.

For diphtheria the following is recommended:—Pilocarpin, gr. $\frac{1}{2}$; pepsin, gr. j.; acid hydroch., m. 3; aq. dest., 3ij.ss.; a teaspoonful hourly.

Chloral has been found beneficial in asthma.

Acid boracic, pt. i.; warm water, pts. xx.; hot glycerine, pts. v., is given by Rosenthal in teaspoonful doses, largely diluted, once or twice a day for catarrh of the bladder.

A poultice of two parts of linseed-meal and one of jaborandi-leaves will be found very effective in mastitis.

Citrate of caffein in 3-grain doses thrice daily is a valuable diuretic.

Benzoate of calcium (gr. x. in water) every three hours is an efficient drug in the albuminuria of pregnancy.

Parsley-leaves applied locally several times a day will suppress the secretion of milk.

Naphthol, 10 to 15 per cent. in ointment, is beneficial and cleanly in skin diseases.

Iodoform externally and internally is reported as useful in goitre.

Phosphate and hypophosphite of calcium is recommended in pregnancy to prevent the decay of the teeth.

Cocca is credited with being a cure for morphinism.

An ointment of salicylic acid and vase carbolic eczema.

MacLAGAN obtains the best results in gonorrhœa tism by administering chlorate potass., gr. ; ferri perchloridi, m. xx., every three hours.

Grindelia Robusta, an excellent remedy in asthma.

Coto-bark, very good in the night sweats of thib.

Sulphurous acid, 1 to 15 parts of water always gonorrhœa (Mr. W. D. Wilson).

Carbolic acid (m. j. for a child of two years) efficacious in whooping cough.

We have a new galactagogue in ditandigit native of Brazil.

A good application for lupus vulgaris—iodorm.

KAVA KAVA IN GONORRHœA.—Dr. Bedman Atlantic City, N.J., records in the *Therapeutic Gazette* cases of (apparently) incipient gonorrhœa rated lows :—

Ext. kava kava fl. fl. 3*v.*

Glycerine, q.s. ad fl. 3*v.*

M.S. Teaspoonful in a full tumbler of water after each al

The patient was directed to take, in addition, a half teaspoonful of Rochelle salt in a tumbler water morning upon arising, and as almost the oldest plumbi subacetat dilut to be injected into the urethra every four hours. All lating drinks or foods, including condiments, were bidden, and the patient directed to exercise as little as possible. In each case the symptoms entirely disappeared in from three days to a week. In cases which had advanced to the second stage no good results were obtained from use of the remedy. The fluid extract used is the manufacture of Parke, Davis & Co.

Trade Notes.

MR. N. G. WILCOCKS has commenced the manufac "mushroom bulbous" corking machines, to give the real champagne corks, for aerated waters.

* *

MESSRS. KAY BROTHERS, of Stockport, have label Essence of Linseed "Poison," and leave space on wrapper for the address label of the retailer.

* *

THE National Chemical Company (pack of chlo lime) have removed from Pitfield Street Ioxton, Suffolk Grove, Great Suffolk Street, Boroug

* *

IT will be noticed that Messrs. W. J. Bush Co. are tising the various fruit compounds, which e used in manufacture of the fruit champagnes which lessors, Ba & Foster have introduced. Either firm will have part respecting licence and machinery for man manufacturing champagnes.

* *

THE Shelfanger mineral water is a tonic antacid depending for its virtues on the magnesia and carbonates it contains, and produced by a spring at Shelfanger, about four miles from Diss in the county of Norfolk. In the analysis by Dr. Attfield, published by the proprietor, the only mineral constituents mentioned are chloride, magnesium carbonate, and iron carbonate. A point more interesting to chemists is the termination of the proprietor to employ no agents, and to supply chemists. If this water is introduced into a new locality, the chemist may therefore be sure that it will not be mortified by his neighbour the grocer offering it at a lower price than himself. The water itself is sufficiently intrinsic virtues to support judiciously it is doubtless as good as many of the foreign liquids which the English public so confidently imbibes.

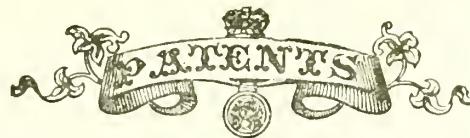
ees of the Liebig's Extract of Meat Company removed to 9 Fenchurch Avenue.

**
generator, on the "improved vertical" system, been supplied by Messrs. Barnett & Foster to the Aerated and Mineral Waters Association (Lim.), perhaps, the largest of its kind in use. It is over h, and weighs more than 2 tons. It is connected someter, the tub of which is made of the best x and the bell of tinned copper.

**
HOFF, of Hamburg, announces by circular that al dispute with Mr. Johann Hoff, of Berlin, is at an e understand the announcement, the two brothers y'e brothers) agree to divide the world between cnot interfere with each other's territory. Great ar Colonies, it appears, fall in the portion of M. M. brotherly love continue!

**
SRS KRUPP, of Essen, Prussia, the great caunoners d steelmakers, have found that for compressing eceding to their new process the best material is iceal gas. They require daily the enormous quantity 000 of the gas, or more than 200,000 litres. Aply have had some difficulty in producing the gas sien and economically, for their Paris agent, we are proted the Essen people telling them of a very large tor Mondolot's principle which had just been l at large aerated-water manufactory in Paris. Kri, one of the sons, with the chief engineer, ponited Mr. Favarger, the London agent for these nes, d he was so much struck with their simplicity fection that he ordered an ordinary one to make rator for the Essen Works, and the biggest generator ult f making the carbonic acid they require for ssing steel. The generator is a simple and ingenious t the constant-supply sulphuretted hydrogen tus d in many laboratories. The acid and whiting sepeate vessels, communicating by a tube. A little acid falls on the whiting, and the pressure of the olved once stops the supply of acid until the gas is law, and the pressure is again reduced. Fresh eners, and the process goes on continuously and tically the evolution of gas is regular and thoroughly stopping or increasing just as required.

**
GLAND NOTES.—A case decided last month in appeal made prominent some facts which are adesmen. Notes had been obtained by means que; these were changed at the Bank of her notes, the numbers of which were then y were cashed in the usual way of business plaint a money-changer at Brussels. Of course ration ad been fraudulent, and for the purpose of ting the notes being traced and the forger detected. all th the plaintiff knew nothing; he acted bond e paid s money for good bank-notes, and when he t payment of the Bank they refused, on the ground e numbers had been altered. At the trial before Coleridge without a jury, judgment had been given for plaintiff, on which the defendants appealed. The at issue as whether or not there had been an altera- any material part of the notes. Lord Coleridge had upon a bank-note as being legally the same as an ory note, and had held, consistently with a of decis, that an alteration in the number of such would be a material alteration, as it would not of the parties thereto. This has long been w as to reantle instruments, and it remains so still. Court o appeal carefully refrained from interfering his princ. The Master of the Rolls based his upon the distinction he drew between an ordinary sory not and a Bank of England note. As he pointed ese note are part of the currency of the country; ender; they are protected from mutilation eration statute. The Bank of England can, therefore notes of which the numbers have been



The following list has been compiled expressly for THE CHEMIST AND DRUGGIST by G. F. Redfern, Patent Agent, 4 South Street, Finsbury London, and at Paris and Brussels.]

Applications for Letters Patent :-

Administering Anæsthetics, &c.—No. 1578.—W. R. Lake.—A communication from S. Cooper, of Westfield, New Jersey, physician, and E. Dennis, of Sing Sing, New York, both in the United States. An improved method of, and apparatus for, administering anæsthetics and diffusing perfumes and disinfectants. Dated March 31, 1882.

Bleaching.—No. 1586.—T. G. Young, of Kelly, Renfrewshire, North Britain. Improvements in the bleaching of jute and other substances. Dated April 1, 1882.

Bleaching.—No. 1775.—A. C. Henderson.—A communication from A. Demours, of Huyssingen, Belgium. Improvements in bleaching hemp and flax, together with their stalks and shives, and rendering the latter fit for paper-making. Dated April 14, 1882.

Bleaching, &c.—No. 1711.—E. Jacobsen, doctor of philosophy, and R. Jacobsen, chemist, of Berlin, Germany. Improvements in the process of bleaching vegetable and animal matters, which invention is applicable for disinfecting and similar purposes. Dated April 11, 1882.

Bleaching and Dyeing —No. 1807.—S. Fulda, of Bow, London. Improvement in the method and means of preparing fabrics for bleaching and dyeing. Dated April 15, 1882.

Caustic Soda, &c.—No. 1630.—J. B. Spence, of Lombard Street, London, and A. Watt, of Charlton, Kent, chemist. An improved process for obtaining caustic soda and chlorine by the decomposition of saline solutions. Dated April 4, 1882.

Chlorine.—No. 1220.—C. Wigg, of Liverpool, alkali manufacturer. Improvements in and in connection with the manufacture of chlorine. Dated March 14, 1882.

Colouring Matters.—No. 1724.—J. Erskine.—A communication from the Farhwerkevorm, Meister, Lucius, and Bruning, of Hoechst-am-Main, Germany, chemical manufacturers. Improvements in the manufacture of colouring matters suitable for dyeing and printing. Dated April 12, 1882.

Colouring Matters.—No. 1773.—J. Erskine.—A communication from C. Rumpff, of Aprath, near Elberfeld, Germany, chemical manufacturer. Improvements in the manufacture of colouring matters suitable for dyeing and printing. Date April 14, 1882.

Colouring Matters.—No. 1905.—J. A. Dixon.—A communication from C. Rumpff, of Aprath, near Elberfeld, Germany, chemical manufacturer. Improvements in the manufacture of colouring matters for dyeing and printing. Dated April 21, 1882.

Colouring Substances.—No. 1730.—J. Wetter.—A communication from O. Breit & Co., of Unter-Barmen, Germany. A new or im proved process for the manufacture of red and colouring substances. Date April 12, 1882.

Distilling Fats, &c.—No. 1703.—C. M. Pielsticker, of Sydneu Terrace, Kilburn, London. An improved method for the continuous distillation, boiling, saponification, and acidification of fats, oils, glycerine, rosins, and hydrocarbons, and improved apparatus in connection therewith. Dated April 10, 1882.

Drinking vessels.—No. 1564.—J. Tams, of Longton, Staffordshire. Improvements in the manufacture of drinking-vessels to be used as measures. Dated March 31, 1882.

Filling and Closing Bottles.—No. 1741.—J. J. Varley, of Charterhouse Buildings, London. Improvements in filling and closing bottles, and in the apparatus therefor. Dated April 12, 1882.

Filter.—No. 1863.—A. M. Clark.—A communication from L. L. T. F. d'Autemareche, of Paris. An improved pocket-filter. Dated April 18, 1882.

Glycerine.—No. 1728.—B. J. Young.—A communication from J. P. Battershall, of New York, United States. Improvements in processes of manufacturing glycerine from soap-liquor. Dated April 12, 1882.

Hydrochlorate of Alumina.—No. 1941.—W. R. Lake.—A communication from T. Gladysz, of Marseilles, France. Improvements in the manufacture of crystallised hydrochlorate of alumina. Date April 24, 1882.

Ice.—No. 1834.—W. W. Nightingale, of Southport, Lancashire. Improvements in means or apparatus for the manufacture of block and other ice. Dated April 18, 1882.

Lead Peroxide.—No. 1721.—F. M. Lyte, of Savile Row, London. Improvements in the manufacture of lead peroxide, also applicable to the production of other metallic peroxides. Dated April 12, 1882.

Lixiviating Vegetable Materials, &c.—No. 1833.—C. Heckmann and E. Hausbrand, both of Berlin, Germany. Improved method of and apparatus for lixiviating vegetable and animal materials, and obtaining extracts therefrom. Dated April 18, 1882.

Malt Extract.—No. 1909.—T. Dence and J. J. Mason, of Little Stanhope Street, Mayfair, London. Improvements in the manufacture of extract or essence of malt. Dated April 21, 1882.

Mordant.—No. 1921.—S. Musgrave, of Leeds. An improved mordant to be used in dyeing blues. Dated April 22, 1882.

Peroxides, &c.—No. 1683.—L. Mond, of Northwich, Cheshire, manufacturing chemist. Improvements in the manufacture of the peroxides of the alkalies, alkaline earths, and hydrogen, and the application of the same for bleaching purposes as far as regards peroxide of calcium. Dated April 6, 1882.

Soap, &c.—No. 1725.—F. C. Glaser.—A communication from Dr. O. Liebreich, of Berlin. Improvements in the manufacture of soap and of fatty acids from oleaginous fruits, seeds, or grain. Dated April 12, 1882.

Stopping Bottles.—No. 1597.—H. J. West, of Southwark Bridge Road, London. Improvements in stoppers and valves of syphon or other bottles for containing aerated or effervescent liquids, or other liquids under pressure. Dated April 1, 1882.

Stopping Bottles.—No. 1898.—J. Ballard, of Nottingham. Improvements in internal and external stoppers for bottles containing aerated and fermented liquids. Dated April 21, 1882.

Stopping Bottles.—No. 1992.—I. Burdin, of Knottingley, Yorkshire. Improvements in internal stoppers for bottles to contain aerated waters and other liquids bottled under pressure. Dated April 27, 1882.

Stopping Bottles.—No. 1569.—W. von Schlieffen, of Schlieffenberg, near Güstrow, Germany. Improvements in stoppers or closing devices for bottles or other receptacles. Dated March 31, 1882.

Sulphide of Sodium, &c.—No. 1753.—W. Weldon.—A communication from W. Helbig, of Aussig, Germany. Improvements in the manufacture of sulphide of sodium and sulphide of potassium. Dated April 13, 1882.

Sulphuric Acid.—No. 1752.—W. Weldon.—A communication from the Société de la Manufacture de Javel, of Paris. Improvements in the manufacture of sulphuric acid. Dated April 13, 1882.

Surgical Splints.—No. 1963.—H. Hidea.—A communication from E. Porteus, of Antwerp. Improvements in surgical splints or supports, to serve also as a litter or ambulance for wounded and sick patients. Dated April 25, 1882.

Tannin.—No. 1665.—E. A. Brydges.—A communication from A. Mitscherlich, of Münden, Germany. Improvements in the process of producing tannin, whereby the minor products, such as cellulose, gum, acetic acid, and bisulphite of lime, are obtained. Dated April 6, 1882.

Treating the Magmas in Wool-washing.—No. 1789.—W. H. Beck.—A communication from C. Violette and A. Buisine, both of Lille, and A. Vinchon, of Rowbaix, both in France. Treatment of the magmas arising from the wash-liquors in wool-washing for the purpose of recovering therefrom, directly and in a purity, the useful principles contained therein. Dated April 14, 1882.

Vaginal Syringes.—No. 2,448.—E. de Pass.—A communication from P. Lawrence, of New York, United States. Improvements in vaginal syringes. Dated May 1, 1882.

Vaporising Fluids.—No. 1,604.—C. Scott, of Belfast. Improvements in apparatus for vaporising fluids to be used as disinfecting, deodorising, or other sanitary and medical agencies. Dated April 3, 1882.

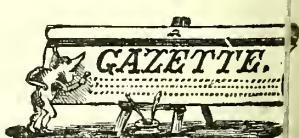
Voltaic Batteries.—No. 1,901.—A. E. Bennett, of Glasgow. Improvements in voltaic batteries. Dated April 21, 1882.

Water-gas.—No. 1,918.—J. C. Mewburn.—A communication from G. S. Dwight, of New York, United States. Improvements in the manufacture of water-gas, and in apparatus employed in such manufacture. Dated April 22, 1882.

Specifications published during the month:—
Postage 1d., each extra.
1881.

3179. G. Lowe. Preparation for healing wounds and sores. 2d.
3537. J. S. Campbell. Moulding or vulcanising flasks for dental purposes. &c. 6d.
3720. W. R. Lake. Devices for stoppering bottles, &c. 8d.
3728. E. Hagen. Production and application of ozonised oxygen for bleaching, &c. 6d.
3741. O. Möcke. Refrigerating apparatus for producing local anaesthesia, 6d.
3748. C. F. Claus. Manufacture of hydrate of strontia. 4d.
3785. J. Alexander and A. K. McCosh. Obtaining products from blast furnace and other combustible gases, &c. 6d.
3797. D. C. Foster. Bottle-washing machines. 6d.
3802. G. F. Rendall. Stands for bottles, &c. (Not proceeded with.) 2d.
3844. A. M. Clark. Manufacture of salts of magnesia and salts of zinc. 4d.

3845. A. M. Clark. Apparatus for moulding bottles. 8
3846. A. M. Clark. Manufacture of salts of soda and magnesia. 8
3847. W. N. Wilkinson and J. W. Lister. Bottles for receiving aerated and other liquids, &c. (Not proceeded with.) 2d.
3850. J. H. Johnson. Preparing colouring matters suitable for and printing. (Not proceeded with.) 2d.
3872. R. Wheen, jun. Extracting oleomargarine and other fat from raw butchers' fat. (Not proceeded with.) 2d.
3882. R. Haldane and J. Telfer. Obtaining products from the small wood, &c. 6d.
3883. E. Luck. Apparatus for acetyfying alcoholic wine and spirits. 6d.
3901. J. H. Johnson. Manufacture of gas, &c. (Not proceeded with.) 2d.
3902. J. C. Steele. Packing chloride of lime, &c. 6d.
3923. W. R. Lake. Explosive compound. 4d.
3930. W. P. Thompson. Manufacture or purification of albumen.
3940. A. W. Reddie. Removing calcareous and other impurities from water. 4d.
3958. P. Jensen. Refining and crystallising starch sugar. 4d.
3959. P. Jensen. Refining starch sugar. 4d.
3981. H. Willington. Abdominal-belts, &c. 6d.
3988. F. Wirth. Manufacture of colouring matter. 2d.
3999. L. A. Groth. Preparation of meat-extract. 4d.
4035. G. W. Bremer. Treatment of substances for the manufacture of adhesive or glue.
4037. W. Clark. Secondary hatters. 6d.
4041. H. Codd. Glass bottles, &c. 6d.
4059. H. H. Lake. Electrical bath apparatus. 4d.
4088. H. E. Newton. Treatment of sewage and refuse. 4d.
4096. J. Nall. Boxes for carrying bottles. (Not proceeded with.) 2d.
4100. H. A. Bonneville. Process for manufacturing all kinds of (Not proceeded with.) 2d.
4116. J. W. Nottingham. Apparatus for drawing cork from bottles. (Not proceeded with.) 2d.
4123. L. A. Groth. Appliances for closing or stoppering bottles. (Not proceeded with.) 2d.
4130. W. C. Horne. Manufacture of pulp for cardboard, &c. (Not proceeded with.) 2d.
4133. L. T. Wright. Purification of illuminating gas. (Not proceeded with.) 2d.
4163. A. G. Salomon. Treatment of "brewers' waste," &c. 4d.
4200. A. Bottin. Brushes for domestic and medical purposes. (Not proceeded with.) 4d.
4201. E. A. Parnell. Manufacture of oxide of iron. (Not proceeded with.) 2d.
4212. P. Spence. Purifying sewage. 4d.
4214. H. E. Newton. Treating seaweed to obtain useful products. 4d.
4231. H. J. Haddan. Feeding-bottles. 4d.
4234. H. J. Haddan. Treatment of indiarubber, &c. 4d.
4381. F. Wirth. Indigo-printing. 2d.
1882.
226. J. M. Thorpe and J. A. Belloli. Protecting bottles, jars, &c. from breakage, either in packing or handling. 4d.



BANKRUPT.

PARKER, GEORGE, & PARKER, GEORGE, JUN., 181 W^{est} our Street, manufacturing chemists, trading as James Rea & April 20

LIQUIDATIONS.

BERRY, JAMES, Atherstone, chemist and druggist. April 14.
MORRIS, WILLIAM, 12 Lowesmoor, Worcester, pensing chemist. April 26.
MOYLE, JOSEPH, 27 The Broadway, Hammersmith, chemist and dr April 25.

PARTNERSHIPS DISSOLVED

BLYTHE, WM. & CO., Holland Bank Chemical Works, Bonbrook, Chester Road, Manchester, 97 St. James's Street, 190 Hope Street, Glasgow, manufacturing chemists. (Mary Blythe, widow, John Thom, James Barlow, William Swart Blythe, Frederick Charles Blythe, as executors of William Blythe, & J. Thom, January 26. Depts by remaining partners.)
TREHARNE, SONS, & BENTLEY, London Street, wholesale gists, and medicine-chest fitters, and ship's stores. (John Davies Treharne and Edmund Thomas Bentley).
WHEELER, WHITAKER & HATTON, High Street, Belf apothecaries. April 1. (Walter James Wheeler, B. J. Whitaker, Frederick W. Hatton). Depts by H. Whitaker.

Change Column.

RS IN THE EXCHANGE COLUMN will much to their advantage to draw up cements so that they will fall in one of the divisions into which debts are grouped.

I also suggest that those who avail themselves of the Disposal section will be wise to some approach to detail, what well. Probable purchasers are too well, cases, to enter into preliminary s, which is likely enough to have result.

Announcements are inserted in this rate of one halfpenny per word, at name and address are added. less to be paid for. Price in its one word.

Address are not included, one must be paid. A number will be given to the advertisement by the CHEMIST AND DRUGGIST, and once relating to it must be to a "Publisher of THE CHEMIST Colonial Buildings, Cannon E.C." the envelope to be with the number. The Publisher correspondence to the advertiser at his share in the transaction

C Money.—In order to ensure of the following system:—The if tybing advertised in the Ex may remit the amount to us, an edge receipt to both parties by hall only pay it away on the mitter. Whether returned to t the seller, we charge a com- ffered, any transaction of 3*s*. or less, re t amount.

Optical.

Globe's, or Druiff & Druiff's spec- q uity from the above vendors l d cap, or exchange for anything price and full reasons for dis- ppel E. A. Turner, Chemist, 280 R., London.

ent and Surgical.

struts (various) of a dentist d, 1*s*. 7*d*, or 3*s*. 6*d*; each; 36 g lments (various), 40*s*.; cheap; win six months. Dentist, 4 Str. Folkestone.

rug and Chemicals.

an oilender, 50*s*.; deposit. 182/17. ent 9 lbs. ol. carni exot.; what

prices) lbs. pulv. nux areca, 4 lbs. umbil. 2 lbs. rad. aconite, 12 lbs. inflam. 1*s*. 1*d*. lbs. gum animi, 4*s*. 1*d*. lbs. monom. 4*s*. 1*d*. lbs. cort. cascarillae, t. ulmi, 10*s*. lbs. aloes socot. d. sellkne, 4 lbs. santonica, imony, 7 lbs. pulv. cinchona, pulv. i ang., 12*s*. 1*d*. lbs. macis opt., ph. anr., 3 lbs. rad. jalape, rad. 2*s*. 4 lbs. pulv. ippecac, rad. baccauri, 12 lbs. pulv. euphor. dispens. 2*s*. 1*d*. lbs. sem. crotonis, 5 lbs. crearoide, 2 lbs. rad. hellebore alb., rad. bist. 5 lbs. gum kinton, 5 lbs. sem. agapa, 6 lbs. rad. pareira brava, 4 lbs., 11 lbs. pulv. cascarilla, shavings, 5 lbs. rad. enula, ariaria, 14 lbs. sem. feniculini, creta gr. 1 cwt. bacca juniper, 28 lbs. wt. pulv. coriander, 1*s*. cwt. stone. Qr. wanted. A. Richardson, New L. Manchester.

1 lb. finest bergamotte, 9*s*.; 6 oz. essential oil almonds (fine prussic acid), 12*s*.; 6 oz. English oil santal, 1*s*. 6*d*. oz. Newcombe, Chemist, Bedminster.

Super essence lemon, Jamaica beeswax, rose geranium, pulv. and rad. zingib., acid. carbolic., and B. P. Chinese vermilion, Bennett's manna cakes, 9*s*. gross; write for prices. Sowerby, Middleborough.

Surplus stock for sale.—One bottle ol. ppt. (Mitcham), one bottle ditto American, some morphia mur., ditto acet., a small quantity of musk, a few plate-glass shop-fittings, &c. 18*s*. 3*d*.

Proprietary Articles.

7 lbs., 11 lbs. 6*d*, 2 10*s*. Mincasea; 4 2*s*. 9*d*. Hall's chlorate of potash; good condition; what offers? 18*s*. 2*d*.

One gross Bradbury's sheep-dip, 3 dozen Bradbury's fly-powder, quite clean, cost 6*s*. 6*d*. net, price 4*s*. cash. Anthony & Biss, Bedford.

Four bottles Clark's "Neurasthenoponkskeles- terizo," 7*s*. 6*d*. size, surplus stock; first reasonable offer. Slaughter & Son, Steyning.

Six dozen small size Long's maggot lotion, and 3*s*. 1*d*. dozen large size; half retail price, and will pay carriage any reasonable distance; clean and reliable. Martlow, Chemist, English Street, Carlisle.

Wanted, offers for three gross and 4*s* packages Bradbury's sheep-dip, and 119 packages Stooke's sheep-dip, slightly faded wrappers, but in good condition; carriage paid to any railway station in the United Kingdom. Apply, "Meg," Evans, Sons & Co., Liverpool.

Wanted, offers for three gross and 4*s* packages

Stooke's sheep-dip, and 119 packages Stooke's sheep-dip, slightly faded wrappers, but in good condition; carriage paid to any railway station in the United Kingdom. Apply, "Meg," Evans, Sons & Co., Liverpool.

Apparatus.

Sheep-dipping apparatus, improved lever, Harvey & Quibel's, price 2*s*. W. H. Scott, Medical Hall, Sandy, Beds.

A Weightman's printing-press, with two founts of type, nearly new, cost 42*s*.; print 7*s*. hy 10*s*. in., price 2*s*. Maclean, Chemist, Glencorse, Edinburgh.

Ten-guinea Smee's battery, by Halse, in mahogany case, light cells, price 3*s*.; also 24 5*s*. pill-machine, good condition, price 7*s*. 6*d*. Harley, Chemist, Mare Street, Hackney.

Half-plate bellows-hdoy mahogany camera, dark slide, developing-box, tripod stand, 1*s*.-plate Darlot lens, with neat black box, for 2*s*. 10*s*. Thomas Walton, Chemist, Sunderland.

Educational.

Botany.—The officinal plants, mounted, only 5*s*. FRESH plants also regularly supplied. Higginson, Newferry, Cheshire.

Postal system for Minor, neatly copied in six books, cash 10*s*. 6*d*. or exchange for Henfrey's "Botany." Smith, 112 Camden Road, N.W.

Materia medica cabinet, cost 7*s*. 7*s*. Evans & Lescher's, in good condition; will take 5*s*. Apply to Heath, 30 Highbury Park, London, N.

Set of illegible autograph prescriptions (original), 2*s*. 6*d*.; 30 prescriptions (catch and difficult) given to dispense at Minor during past 12 months, 2*s*.; 50 questions asked of successful students at last Minor, 1*s*. 1*d*.; lot of cheap, almost new, books, stamp for list, Saunders, 130 Camden Road, N.W.; note change of residence.

Literature.

Chemist and Druggist of 1879, in good condition; what offers? E. Valpy, 4 Qualrant, Liverpool.

Pharmaceutical Journal from commencement, 1841-1880, unbound; Faraday's "Chemical Manipulation," and many others. Miss Dear, Shaftesbury.

Williamson's "Chemistry" (8*s*. 6*d*.) for 5*s*.; Prauth & Vine's "Botany," 1880, 4*s*.; Cassell's "Lessons in Greek," 1*s*. 6*d*.; Donuegan's Greek-English Lexicon, 3*s*. 6*d*.; Parkes' "Chemistry," 1818, 1*s*. G. Kelly, Arthur Street, Leicester.

The *Chemist and Druggist*, 94 numbers, from 1874 to 1881 inclusive, nearly complete, in good condition, price 20*s*.; also *Pharmaceutical Journal*, 396 numbers, from 1874 to 1881 inclusive, nearly complete, price 25*s*. Mr. Macdonald, Chemist, Newington, Edinburgh. Standard Works.—"Physiology," Kirkc, 100 illustrations, 6*s*.; 12*s*. 7*s*.; Dalton's 27*s*, 12*s*. 6*d*.; Carpenter's, 370, 14*s*.; "Diseases of Women," Barnes, 169 plates, 11*s*.; Gaillard Thomas, 191, 12*s*. 6*d*.; Churchill, 50, 7*s*. 6*d*.; "Midwifery," Lee, 64 plates, 8*s*. 6*d*.; Churchill, 122, 7*s*. 6*d*.; Smellie, 2 vols., 6*s*.; Burns, 5*s*.; Hamilton, 4*s*.; Osborne's, 4*s*.; Dewees, 7*s*. 6*d*.; Denman's, 2 vols., calf, 5*s*.; plain, 3*s*. 6*d*.; Science Dictionary, 5*s*.; Billing's "Principles of Medicine," 6*s*. 6*d*.; Barclay's "Medical Diagnosis," 6*s*.; ear (Toynbee), 7*s*. 6*d*.; teeth (Bell), 6*s*.; Lescher's "Pharmacy," 3*s*. 6*d*. William Turner, Chemist, Totterdown, Bristol.

Soda-water Plant.

Fifty dozen champagne bottles; what offers? Harvey, Margate.

Sphon-bottles, Mondolot's, pear-shaped, in good order, 7*s*. 4*d*. per gross. Baildon & Son, 73 Princes Street, Edinburgh.

American machine, patent bottles, boxes, filters, &c.; nearly new. Apply, F. Wheeler, Guildford.

Barnett & Foster have some second-hand soda-water machinery of their own make for sale. Apply 23*s* Forston Street, Shepherdess Walk, N.

Patent bottling machine for cork bottles, second hand, by Dows, Clark & Co., as good as new; 4*s*.; sketch free. Particulars, N. G. Wilcocks, Bath.

Soda-water machine by Sampson Barnett, also gaswork, in good condition; may be seen at work; second hand. Particulars, N. G. Wilcocks, Bath.

Handsome mahogany soda-water stand with circular marble top, as fig. A 57 Maw's catalogue; bought only two years since, and equal to new. Haller, Chemist, Boston.

Shop Fittings.

Two specie jars, Maw's fig. 1, 24-inch, with mahogany stands, gilt tops, 5*s*. 5*d*. 18*s*. 3*d*.

Large and handsome dispensing screeu. J. F. Rose, Chemist, Portwood, Stockport.

Show-jar and mahogany stand, good as new; Great Britain Arms—arrowroot. Offers to Griffiths, Kidsgrove, Staffs.

Two counters, mahogany tops, wall glass-case, 50 jars, 60 2*d*. bottles, six specie jars, 40 digesters, sundry drugs, cheap. Apply, Harrison, 249 Old Chester Road, Tranmere.

Two specie-jars, royal arms on white ground, height 28 inches, circular stands and square mahogany bases; what offers? Chemist, 81 Chalk Farm Road, N.W.

Show-jars. Two handsome jars, elegantly labelled inside, Prince of Wales and Pharmaceutical Society's arms, with handsome enamelled glass covers, nearly new, cost 12*s*. 12*d*., cash price 8*s*. 8*d*. (lowest). Anderson, 2 Croxton Road, West Dulwich.

Must be sold.—300 shop bottles and jars, several nests of drawers (containing from 12 to 75 drawers each), small carboys, show-bottles, upright cases, mortars and pestles, medicine chests, pill machines, dispensing-seals, &c. Apply, Blackwell, Chemist, Birmingham.

Shop-fittings, chemists' drawers in all lengths, mahogany-edged shelving, counters, desks and cases, and all chemists' fittings; shop-front for sale, suitable for shop, 16 feet long; 22 black store-carboys, with japanned covers. Apply, B. & G., 22 Gun Street, Brushfield Street, Bishopsgate, London.

Soda-water stand as Maw's A 59, price 2*l.* Handsome upright mahogany glass case, length 50 inches, height 34 inches, depth 6*1*/₂ inches; four movable shelves inside, four shelves at back for dispensing-bottles; price 2*l.*; both these are as good as new. Carlton, Chemist, Peterborough.

30 doz. good shop-rounds, average price 7*s.* 6*d.* per doz.; a quantity 4-lb. and 6-lb. white jars, japanned covers, in first-rate condition, 12*s.* doz.; 8-lb. brown ditto ditto, 15*s.*; a quantity glass-capped ether bottles, from 2 oz. to 10 oz., 33 per cent. under Maw's price-list; iron mortars; Wedgwood mortars, E. Natali, 207 Old Street, Shoreditch end, London. All numbers refer to Maw's new list.

Quantity gold-labelled shop bottles and jars, pear-shaped and swan-neck carboys, specie jars, handsome show and jujube jars, lozenge jars, glass percolators, composition, glass, iron, and marble mortars and pestles, all sizes; upright and cartouche-shaped black glass stock bottles; store canisters, 112 lbs.; tea and coffee canisters; coffee, tea, and drug mills; pill machines, tincture-presses, scales of all kinds, oil and treacle cisterns, &c. Lloyd Rayner, 333 Kingsland Road, London, N.

Nearly new nests of drawers and shop rounds, store bottles, shop jars, show bottles and specie jars, desks glazed, cases counter and wall, lamps and irons, dispensing screens, shelving, counter-cases for cigars, tobacco jars, two mahogany doors embossed glass, sheet plate-glass in mahogany frame 5 ft. 10*1*/₂ high, 4 ft. 10*1*/₂ wide, scales, medical books, 56 lbs. each gum guaiacum and gum myrrh, dark, 1*s.* per lb., in any quantity; 4 oz. eau de Cologne bottles 9*s.* gross, and various shop-fittings, all cheap, to clear out. 846 Old Kent Road.

Plate glass counter-cases, equal to new, as fig. A 18, 5 ft. long, 6*l.* 10*s.*; 6 ft. long, 7*l.*; do. do., 8 ft. long, 8*l.* 10*s.*; 3 ft., as fig. A 3, 40*s.*; 4 ft. long, 50*s.*; as fig. A 16, 3 ft. long, 60*s.*; 3 ft. 6 in. long, 70*s.*; 4 ft., as fig. A 17, 55*s.*; as fig. 99, 5 ft. 8 in. long, 7*l.*; bent plate-glass tooth-brush case, 30*s.*; do. do., fig. A 9, 30*s.*; also several others; a number of plate-glass wall-cases, from 4 ft. long, very cheap; cigar-case, fig. A 33; 8-ft. bent plate-glass counter-case, 8*l.* E. Natali, 207 Old Street, Shoreditch. All numbers refer to Maw's new list.

16 ft. nest drawers, with fixtures and shelving over, 17*l.*; 12 ft. fixture, as Maw's fig. A 84, bevelled, glass labels, all equal to new, 16*l.*; 10 ft. fixture, drawers, shelving, lockers, and cornice complete, 10*l.*; glass wall case, with cupboard under; 17 ft. mahogany-top counter, fitted with drawers the entire length; a 6 ft. mahogany counter, plate-glass cases in front, equal to new, 7*l.*; a quantity shop drawers, mahogany fronts, gold labelled, from 1*s.* 6*d.* per drawer; good deal-fronted ditto, at 1*s.* per drawer. E. Natali, 207 Old Street, Shoreditch. All numbers refer to Maw's new list.

Dispensing-screen, one of Maw's, cost 12*l.*, price 6*l.* 10*s.*, nearly new; handsome dispensing-screen, cost 10*l.*, price 6*l.*, done up equal to new; bent-ends screen for 70*s.*; screen, 5*1*/_{2 ft., 100*s.*; screen, 6 ft. long, 6*l.*; seven wall-eases, 5 to 9 ft.; 39 specie-jars, some very handsome; 20 show globes and stands; desk and case, 40*s.*; shall have the contents of two shops next week—jars, globes, bottles, counters, windows, fittings, glass cases—everything to fit up with. R. Tomlinson, 15 St. Paul's Square, Birmingham.}

Plate-glass sponge ease, fig. A 41, 65*s.*; do. do., fig. A 43, 51*s.*; desk and glass ease, fig. A 32, 65*s.*; 4 ft. 6-in. dispensing-screen, with tablet on top, plate-glass doors, and polished mahogany, 90*s.*; a 5-ft. do., do., 5*l.*; 6 ft. do., do., do., 6*l.*; 3 very elaborate dispensing-screens, 5 ft. long, 6 ft. long, and 7 ft. long, fitted with a plate-glass case at each side, with silvered plate-glass centre, with marble slab in front, surmounted with tablets, &c., "Dispensing Department," fitted inside cases, with silvered-glass backs and shifting shelves, also fitted at back with three shelves for dispensing bottles, each 8*l.* 10*s.*; very elaborate specie jars, royal arms, &c., 80*s.*; a pair; opaque jars, elaborately labelled, glass gold covers, fig. D, equal to new, 8*s.* each, worth 12*s.* E. Natali, 207 Old Street, Shoreditch end.

Must be sold, space wanted: Shop-fittings and show-cases, &c., to suit all trades; retail and dispensing counters, from 4 ft. to 18 ft. long; three handsome Spanish mahogany, glass case-fronted counters; 15 handsome mahogany dispensing-screens; 4 handsome mahogany dispensing-screens; with a mirror in centre and a case at each end; 35 nests chemists' shop drawers, with gold and glass labels; quantity counter and warehouse drawers; 45 Spanish mahogany and ebony-nated plate and sheet glass wall cases, sizes from 2 ft. up to 20 ft. long; window enclosures; 60 handsome counter show-cases, all designs; mirror show-stands, sponge and tooth-brush cases; soda-water stands; shop-chairs; upright show-cases, with and without desks; and every description of fittings required by the trade. Lloyd Rayner, 333 Kingsland Road, London.

2 ft. long, 4 ft. long, 6 ft. long, 8 ft. long, 10 ft. long, and 12 ft. long mahogany-fronted, dovetailed drawers, glass knobs and bevelled edges, glass labels, 2*s.* 9*d.* per drawer; if with gold labels, 2*s.* 6*d.*; if with mahogany knobs, 2*s.* 3*d.* (some nests have two rows of small and two rows large drawers, and others three rows small and two rows large drawers); a number of mahogany cupboards from 3 ft. to 9 ft. long; deal painted lockers, from 4 ft. to 16 ft. long; mahogany-fronted shelving, any length; mahogany cornices, pilasters, and uprights for shelving; 2-20 ft. counters, 1-18 ft. ditto, 5-10 ft. ditto, 3-8 ft. ditto, 1-7 ft. ditto, also 20 other counters; a mahogany-fronted counter, with circular end, a bargain; a 7 ft. wall-case, fig. A 86, 12*l.*; a number of wall-cases, from 3 ft. 6 in. to 12 ft. long, very cheap; two mahogany wall-eases, 3 ft. long, 34 in. high, 35*s.* each; a mahogany wall-case, 3 ft. long by 28 in. high, 40*s.* Sketches, with descriptions, free. E. Natali, 207 Old Street, Shoreditch.

Formulas.

A copy of my recipe-book for 10*s.* 6*d.*; contains over 100 practical recipes, including most leading articles of the day, result of 15 years' experience; invaluable to chemists commencing business or emigrating; list sent on application. Chemist, 8 Cambridge Gardens, Hastings. Offers in goods, &c., entertained.

Reliable recipes, 6*d.* each, six for 1*s.* 6*d.* for list. "Chemist," care of Wye, Keat.

My formula for Glycerine Cong. the acknowledged success of a brilliant ruby-red colour, &c., it should be found on the counter of every chemist from John G. Galt to Land End. Sent on receipt of stamped directed envelope. The Plaies, Totnes, Devon.

Select and well-tried formulae—each six for 1*s.* 6*d.*: chlorodyne, rheumatic embrocation (efficacious & painkilling); gleet, ring-worm, and tapeworm; crystalline pomade, blue-black ink (galls or iron), antispasmodic diarrhoea; gonorrhoea mixtures, picturated ointment, kid reviver, foaming ointment, hop-yeast. Robs. Westland Street, Newcastle-on-Tyne.

Well tried, reliable formulae—Entirely different from those above. "Toothache Remedy," giving instant relief; union-poisonous, infallible; antiseptic, jet-black, waterproof better than Nubian; "Lubricator," the king of pick-me-ups; American preparation, "Digestive Relish," mellancholic panaceia; petising, from 3*s.* gallon and Glycerine, "elegant, creamy, &雪白的," perfectly inseparable, wanted best in market; "Foaming Denat. Floriline, one-eighth camphor, &c., excellent remedy, inexpensive." "Aline Balm," vastly superior to milk of magnesia; elegant emollient, non-oily; spasmodic Elixir," truly invaluable in wind, indigestion, &c., doses reduced; "Corn and Wart Eradicator," quickly moves corns, painless (& acid), testimonials; "The Chemist's Int. perfect ever introduced, particularly to chemists; "Lincolshire Bouquet," excellent, full-bodied, perfume resembling mona bouquet; "Chloroform," mixes freely with water, &c., inseparable equals Bromine; inexpensive; "Peruvian oil and aromatic Pills," these, solid under name, have enormous sale; "Tonic Puff Poultry," "Red Paste," game &c., recipes of practical breeder, ranted splashed preparations; "Ginger Powder," "Lemonade Powder," packeted 2 gallons excellent drink; "Syrup of Lemons," prepared from the pure fruit by improved process, taste retained, no essence used, well; "Effervescent Dr. Radcliffe's," fac-simile of Eno's, perfumed well, costs 10*lb.* 1*s.* ("Oxymel," certain, speedy cure for colds, &c., standing cases quickly removed, restorer" (*sine sulphur*) leaf and elegant appearance, most durable); "Laudanum Water," excellent, in fragrance, superior many bouquets; "Occasional Cough," (for physician's prescription) to Welch's or other firms; "Eardrops for Deafness," simple, &c., expensive; "Quinine" (resembles Pepper's), spirituous preparation; "Worm Salt," table, pleasant taste, &c., for Gonorrhœa, "radical cure," taste covered. All上述 genuine (exchanged for 1*s.* 1*d.* each, 3*f.* Price 1*s.* 1*d.* each, 3*f.* free. Detailed lists of any post free. T. Brookes, Lincs.

ent insect powder, costing 8d. per lb.;
5s. Ginger-beer powder, equal to any
market; a 2-oz. packet makes two
gals. of ginger beer; recipe, 5s. Egg
powder, without turmeric, costs 7d. per lb.;
recd. 1s. 6d. Non-mercurial plate-powder
process a brilliant polish, cost 5d. per lb.;
recd. 2s. 6d. J. David, 22 George Street,
Swallow.

gramming dentifrice (like "Florilene");
marl ink, *sine* silver (aniline), writing
exceeds defies chemicals; effervescent
fruit (resembles Eno's); magic neuralgic
rops (never-failing remedy); quinine
and a tonic (resembles Pepper's); lime-
juice and glycerine (inseparable, white as
milk); blue-black ink (non-corrosive, *sine*
iron gall); cherry tooth paste (never
ferme, like Cornell's); brilliantine (in-
separable, like Rimmel's); pill-coating
(pearl white, no mucilage or mastic used);
glycerine jelly (perfectly transparent);
marking-ink; hair-restorer (colon-
deposit, *sine* silver); aromatic
vinegar (toilet vinegar (as Rimmel's); plate-
powder like Stevens' "Silicon"); Oleum
Flavor Conc., for pomades (colour
table) double essence ginger (like Hay's);
vent, clear (not acid); liquor
amp. c. buchi et matice (mixes
water); gonorrhoea paste, ex-
cellent (D. Ricord's); taraxacum and podo-
phyllin (resembles Pepper's); with many
and stamp for list, stating wants.
preparations are identical with
those prided by a wholesale West-end firm;
all good; all inexpensive to make;
each (for 1s.). Readers are cautioned
against trap and worthless imitations. I
am first to advertise formulae in this
journal. Note change of residence,
Analys. care of Mr. Warnes, 130 Camden
Road, N.

Miscellaneous.

Table or change, case honeycomb sponge,
4 pieces, price 4s. 10d. Mitchell,
Chemist, Isley.

Lawrence's spectacles: 2 lbs. 10 ozs. ol. lavand., Mitcham, 1876; what offers? Holt, 139 Great Ducie Street, Manchester.

Cheap. Twelve strong iron-bound oak store-casks, suitable for warehouse. Price, apply A. C. Riding, 98 Devonshire Street, Sheffield.

112 lbs. finest whole roasted coffee, cost 1s. 1d. lb.; 1 cwt. 2 qrs. 27 lbs. finest ground chicory, cost 3s. cwt.; what money offers? 18s. 27.

Job lot of large teats, black and white, sample dozen assorted, sent free on receipt of 3d. postage. Peter Tyrer, Long Lane, Borough, London.

What cash offers for a 4-guinea Leath & Ross' homœopathic medicine show-case containing 38 ls., 39 9d., 33 6d., pills, &c.; Knight's "History of England" in 8 vols., cost 4l. 4s.; 2 vols. Scribner's, '79-'80, cost 7s. 6d. each? Key, Chemist, Pontypridd, Glamorganshire.

Two 4-gallon show-bottles, 9 dozen glass-lid boxes, 11 by 7 by 3; 1 dozen 4-once blue extract pots; 1 dozen 1-lb. wide mouthed stoppered bottles, labelled; glass syringes, male or female; two Florida water, one oil-cistern, 30 gallons; a hot-water bed, "Bailey's," '72 to '86; refrigerator, Brande's "Mannal of Chemistry," Abel and Bloxam's "Chemistry," "Pharmaceutical Journal" from 1856, part bound. 18s./25.

Quantity of trusses, left circular, single and double S. and O., various enema apparatus, respirators, suspensory bandages, pin leg, iron pestles and mortars; first-class photographic apparatus, complete portrait and landscape; tea-mill, chest-protectors, first 42 vols. *Lancet*, tincture-press, Crown perfumery, Lea & Perrins' coffee, Gowland's lotion, ol. lavand. ang. opt., isinglass, wax vestas; all in perfect condition, and very cheap. Barry, Chemist, Shaftesbury.

WANTED.

A recent copy of Gray's Supplement. 185.19.

One-grain pill machine. State price, Yates, Chemist, Blackburn.

Oakley Coles "Dental Mechanics," or Balkwell's "Mechanical Dentistry." 182/2.

A pair of crutches, 3 ft. 3 in. for boy, like fig. 7 Maw's list. Stafford, Ross.

Louise Magic Polish, W. Wade, Chemist, Sidcup, Kent.

Soap-stamping press, rings, dies, &c.; second-hand. Wicks, Burnley.

Ice-safe, and everything necessary for ice cream manufacturer; send description and prices. 184.21.

Several large iron tanks, fitted with taps; state measurements, weight, and price. Griffiths, Kidsgrove, Staffordshire.

Specie-jar, with or without cover, height 27 in. Price, &c., to M. J. Bentley, Chemist, Sheffield.

Druggists' Stock, fixtures and fittings purchased for cash. Mr. James, 82 Parkhurst Road, Holloway, N.

"Year-book of Pharmacy," 1878, 1879, and 1880. C. B. Miller, 34 Darnley Road, Hackney.

Bicycle wanted, 40 in., exchange for Muspratt's "Chemistry" and "Circle of Sciences." Kelsey, 163 Marlborough Road, Dublin.

Four swan-necked show window-bottles, 3 or 4 gallon. State particulars, Wilson, Chemist, Leven Street, Edinburgh.

Four carboys, pear-shaped, height about 26 in., carriage to be paid. Spring & Bell, Chemists, Brigg, Lincolnshire.

A good reliable Safe, and Royle's "Materia Medica," late edition; state lowest. Daykin, Chemist, Ripley, Derbyshire.

Wanted in Exchange.—Right trusses, glass jars, tooth-brush case, small printing-press, glazier's diamond, Joyce's disinfecting solution, or offers. Barry, Chemist, Shaftesbury. The "Analyst," No. 13 to 57, or in yearly vols., which include those; also Vilie's "Artificial Mannes," by Crookes. Address, "The Fnbile Analyst," Greenock.

We are still in want of February number of *The Chemist and Druggist*; 8d. each will be paid for complete copies sent to Publisher C. & D., 44A Cannon Street, E.C.

lowest price at which business can now be done, though transactions at 1s. 11½d. have taken place.

OXALIC ACID is still 7d. for first hand, but second-hand lots have dealt in at 6½d.

SALTPETRE is 1s. lower for British refined than last month.

BORAX is slightly higher for some makes.

IODINE selling as previously at 6d. per oz. for all the products.

GLYCERINE is being offered at easier prices. Makers are apparently beginning to imagine that one or other of the various patents which have been taken out for obtaining the product from soap-lye may have "something in it."

QUININE is very quiet at lower prices quoted. American prices, which now to a great degree rule the market, are lower than on this side. For the present there is an entire absence of activity in the market there, and, by latest advices, \$2 could not be obtained for German brands.

The effect of the removal of the duty in the United States seems to have caused an enormous increase in the consumption of quinine. The average imports of bark seem to have been rather more than maintained during the three years which have succeeded that event, so that it may be supposed the home production has kept up, while the quantity of quinine imported has advanced from 17,549 ozs. in 1878 to 408,851 in 1881.

The bark sales have passed off very quietly, most of the transactions of the past month having been private. There has been a disposition to let go South American sorts at somewhat easier prices, which characteristic is reflected in our prices current.

There have been two drug sales since our last, and business seems to have been fairly active.

ALOES.—Scarcity of good Cape has caused some slight advance; cream of tartar, tartaric and citric acids, looked for during the past month; but it appears that the present at least there is to be no strain on the market, all having been rather pressed for sale with a slight decline. Citric closes rather firmer, 2s. being the



Report of the Board of Trade for April shows a slight improvement both as regards imports and exports, but is of very small dimensions. The imports of mounted in value to 36,079,207., against April 1881. Except a marked increase in wheat imported there is nothing very noticeable in the returns. The exports figure for April 18,130,331. in the corresponding month last year chemicals again figure badly, as will be seen below:

	April, 1881	April, 1882
.. cwt.	593,408	583,992
.. value £	166,081	180,739
.. £	218,156	178,425

slight decrease in quantity and the improvement in respect of alkali appears to suggest that prices had extent of nearly 10 per cent.—an indication does not seem to be satisfactorily based.

The chemical market cannot be said to have last month, though orders are said to be up to the average. Soda crystals just after our last sold at 6d., but quickly lost that position, and are dealt in even money. Other alkali products are really the same, but in all there is a too abundant

advance; cream of tartar, tartaric and citric acids, looked for during the past month; but it appears that the present at least there is to be no strain on the market, all having been rather pressed for sale with a slight decline. Citric closes rather firmer, 2s. being the

BALSAMS.—Copaiba is in rather better supply, but prices are well maintained. Peru is still most scantily offered.

CAMPHOR is much firmer in appearance. Japan has been sold for 85s. A case of American refined on the market last week realised 1s. 2d.

CARDAMOMS.—But little business transpiring, in consequence of the high demands of holders.

CUBEBS.—Holders seem to think that the supply coming forward will be hardly sufficient to meet the demand, and for the present they are again asking 10% per cwt., after the price had fallen to 7s. 10s.

ESSENTIAL OILS.—Aniseed is 6d. lower. Lemon is being quoted at somewhat easier prices. Peppermint is lower for American, English, and Japan.

GUMS.—Gamboge is being bought up. Rather better prices for Turkey have been realised. Shellac has been very dull, but a slight reaction has occurred lately.

HONEY.—Jamaica somewhat largely taken at prices varying from 36s. to 43s.

INDIGO.—The April sales, at which over 12,000 chests of East India were offered, went off flatly, Continental buyers especially being in small attendance. Bengals sold at 3d. to 6d. below the January rates; Oides generally at about 6d. decline; Kurpah's from 4d. to 6d.; and dry-leaf Madras 2d. to 3d. lower.

IPECACUANHA was bought at the April sales at higher prices. This month holders will not let go for less, and no business has resulted publicly.

ISINGLASS.—The monthly sales on the 25th ult. resulted in a slight decline of about 1d. per lb.

LEAVES.—Coca bought in at 1s. 6d. per lb. Jahorandi sold without reserve for 2s. per lb. Rose bought in at 6d. Buchu and senna unchanged.

MUSK has been in rather brisk demand at the sales of the past month. First pile has advanced 3s. to 4s.; second and third piles from 6s. to 8s.

OILS.—Almond oil is likely to be rather cheaper, as there are prospects of a good crop. Castor in abundant supply, and fractionally lower. Cod-liver.—10 casks of Newfoundland sold at last sales at 7s. Olive is easier, in consequence of the certainty of a good crop, but it is thought that the effect of this assurance is by this time fully discounted.

OPIUM is firm in the London market, with not much doing. From Smyrna dulness is reported. The reports of injury to the crops by frost have been confirmed, but, as this always happens to a greater or less extent, the chance of a fair average crop is a very reasonable one. If estimates are to be relied upon, we may look for a crop of about 5,000 to 6,000 cases. As a matter of fact, the crops generally exceed the Smyrna estimates made at this season; but, with the above added to the surplus of last year's excessive supply, there would be no difficulty in getting on very comfortably for another twelve months. Locusts and speculators have yet to be allowed for. Outside these, the probabilities are that opium will not greatly fluctuate during the current year.

WAX.—Jamaica bees has been competed for, an advance resulting. Wax from Jamaica, Australia, Madagascar, Mauritius, India, and Japan is now on the market.

TURPENTINE has been declining all the month, and now sells at 42s., and is quoted 33s. to 33s. 6d. for September-December.

PETROLEUM fluctuates within very close limits. The latest quotations are the highest of the month—namely, spot, 5 $\frac{1}{2}$; June, 5 $\frac{1}{2}$ to 6; July, 6 $\frac{1}{2}$; August, 6 $\frac{1}{2}$; September-December, 6 $\frac{1}{2}$.

Messrs. A. & M. ZIMMERMANN favour us with the following observations:—

COD-LIVER OIL.—Since our last report in this Journal we have experienced, contrary to all expectations, a continued scarcity of the supply of cod-liver oil. We have had good reason to expect that the second part of the fishing season might eventually make up for the deficiency of the supply

from the first. We hear, however, from Firmarken, where the floating factory is now waiting the delivery of short message "No fishing." The very small quantity we have ourselves obtained, and the little which has come to England from other sources, do not by far meet the requirement of the year, and there is no doubt whatever that little stock is in dealers' hands will soon be taken away by the trade, and high prices must prevail during the year.

QUININE.—Brunswick brand has been in steady use for the home trade, and prices tend to slightly increase.

GALL PRODUCTS.—A report from a Continental printed in this Journal last month stated that these products, though manufactured from China galls of some 100 percent increased value, are balanced in cost price by the lesser value of ether and alcohol. This information may, as we have experienced, mislead many a dealer, who is ignorant of the process of manufacture of these products, but any half educated chemist will admit that the very minimum part ether plays in the manufacture of gall products compared with the maximum importance of the raw material makes it altogether absurd to put such a theory forward, which can only cast suspicion upon the good sense of the writer. The prices of gall products have still to be raised, and is much more than hitherto has been done.

GLYCERINE has experienced a considerable decline in price, owing to the solution of a speculative difficulty, familiar to the principal holders. At the reduced price, however, an active demand has sprung up, so much so that it cannot fail to cause again higher quotations to prevail. In all appearances it does not seem likely that glycerine will ever again sell at the old low prices, and buyers will do wisely in providing their wants at present prices.

OTTO OF ROSES.—Our Kezanlik correspondent some short time ago pictured the despair of the people of the district after a sharp frost had spoiled all the beds of roses there. Public prayers and processions, as he reports, we offered in appeal to Heaven for the blessing of a warm rain in particular necessary in order to revive the much damaged crop. This report had hardly reached us, and other messages had confirmed the desolate state of things Kezanlik when a rise in the price of otto immediately took place. It appears, however, that since then the rain so much desired has taken place, and it may yet be possible to have good yield this season.

The following is the Report of the Stocks in the Port of London on April 30.

	1882	1881	82	1881
Aloes	cs 3,085	3,103	Gum (cont.)—	
"	kgs 3	—	Benjamin.. pkgs	113 27
"	gourds 105	215	Damar.. "	966 3,778
Aniseed, Star chts	465	588	Galbanum.. "	24
Arrowroot	cks 10,611	12,619	Gamboge.. "	154 22
"	bxs & tns 6,033	9,265	Gaiacum.. "	46 1
Balsam	cks, &c. 31	35	Kino	164 27
Bark, Medicinal	cks, &c. 980	1,079	Kowrie	622 1
"	srns, &c. 62,846	30,083	Mastic	109 127
Borax.....	pkgs 595	682	Myrrh, E.I.	240 270
Bees' Wax	bis & srns 447	918	Olibanum.. "	950 5,733
"	cks & cs 1,037	1,602	Sandarac.. "	559 10
"	cakes 4	60	Senegal	— 16
Wax, Jap.vgtbl. rk	4,482	5,964	Tragacanth pkgs	449 1,699
Camphor	pkgs 4,406	3,825	Ipecac.. cks & bgs	250 250
Cardamoms	chts 733	513	Jalap	219 200
Cocci, Ind. bgs, &c.	57	796	Nux Vomica pkgs	540 1,902
Colombo root pkgs	1,598	531	Oil	
Cream Tartar	cks 71	108	Caster	879 63
Cubeb	bgs 95	98	"	921 9,487
Dragonsblood chts	189	263	Palm	117 63
Galls, China and Japan	cks 190	2,750	Coconut	320 10,196
Trky & Prsn sks	6,334	1,408	Olive	552 1,288
Gum—			Aniseed	287 166
Ammoniac pkgs	266	321	Cassia	385 228
Animi & Copal	pkgs 7,828	3,986	Opium	— 367
Arabic, Barbary	pkgs 2,451	1,219	Rhubarb	666 765
Turkey .. "	2,353	1,918	Sarsaparilla	786 407
E.I. "	2,728	2,390	Senna	692 1,792
Assafoetida .. "	283	527	Tr. bis, &c.	

Monthly Price Current.

oted in the following list are those actually obtained in
one for articles sold in bulk. Our Retail Subscribers must
expect to purchase at these market prices, but they may draw from
use conclusions respecting the prices at which articles are
bought by Wholesale Firms.

	Last Month			This Month		
	s.	d.	s.	d.	s.	d.
etetic..... per lb.	0	3½	to	0	0	0
"..... "	0	6	..	0	9	0
cial..... "	0	11	..	1	0	0
enzoliclimate..... "	3	6	..	3	6	0
Gum..... per oz.	0	9	..	0	0	0
tric..... "	2	0½	..	2	1	0
allic..... "	3	3	..	3	10	0
ydroctic..... per cwt.	4	6	..	7	6	0
tric..... per lb.	0	3½	..	0	4	0
allic..... "	0	7	..	0	0	0
lphur..... "	0	1	..	0	0	0
icyclic..... "	7	0	..	7	9	6
amic..... "	1	6	..	2	7	4
artaric, English..... "	1	8½	..	0	0	3
reign..... "	1	8½	..	0	0	8½
ONY, cre..... per cwt.	32	0	..	0	0	0
st..... "	54	0	..	0	0	0
nc, hum..... "	24	6	..	0	0	0
powr..... "	10	6	..	0	10	9
ONE, cre..... per ton	127	6	..	137	6	127
r..... per cwt.	8	9	..	9	8	9
f..... "	10	9	..	12	6	10
INE, German.....						
id..... "	116	0	..	124	0	104
brown..... "	75	0	..	95	0	70
AM..... per lb.	14	0	..	14	3	12
dry..... per oz.	0	5	..	0	6	0
resubled..... "	0	8	..	0	0	8
HA, calced..... per lb.	1	0	..	1	6	1
Hw..... "	5	0	..	0	0	5
IV..... per hott.	117	6	..	0	0	122
FATE, r..... per lb.	2	11½	..	0	0	2
Vte..... "	2	10½	..	0	0	2
N BLU..... "	0	0	..	0	0	0
RUNE..... "	15	6	..	18	3	14
E..... "	12	0	..	0	0	10
..... "	22	0	..	0	0	22
..... per ton	122	6	..	125	0	0
powder..... "	137	6	..	0	0	137
nia:						
onate..... per lb.	0	6½	..	0	6½	0
chloride..... "	0	6½	..	0	6½	0
e..... per ton	600	0	..	760	0	600
ze..... "	430	0	..	440	0	405
ape..... per cwt.	80	0	..	98	0	87
ed..... "	65	0	..	80	0	70
porto, re..... "	36	0	..	36	6	36
g powde..... "	5	0	..	5	3	5
ritish re..... "	69	0	..	61	0	60
..... per lb.	2	7½	..	0	0	2
hydrate..... "	4	5	..	4	7	4
lebreich..... "	5	6	..	6	0	5
te..... per cwt.	19	9	..	0	0	19
green..... per ton	42	6	..	45	0	42
a Sublin..... per lb.	2	0½	..	0	0	2
artar, Fre..... per cwt.	122	6	..	123	0	120
bro..... "	106	0	..	0	106	0
alte..... "	4	0	..	4	6	3
Salts..... "	4	3	..	5	3	4
Carlate..... "	40	0	..	0	40	0
Murdas..... "	72	0	..	0	0	72
gas..... per lb.	7	3	..	7	6	7
..... "	1	11	..	2	0	1
amate..... "	0	6	..	0	0	6
date..... "	0	6	..	0	0	0
shes, Cala.....						
t sort..... per cwt.	29	0	..	0	0	29
t sort..... "Calal,						
lashes, Cala..... per cwt.	29	0	..	0	0	29
ate..... "	51	0	..	0	0	46
ate..... per lb.	0	5½	..	0	0	5½
red..... "	0	10	..	0	11½	0
ate..... "	1	11	..	2	0	1
m:..... "	9	0	..	10	6	9
de..... "	1	5	..	1	6	5
ate..... Per cwt.	9	0	..	0	0	9
ate..... per lb.	7	6	..	0	0	7
ate, Brita.....						
ite, French..... "	10	0	..	0	0	9
ite, German..... "	9	10½	..	10	0	9
es..... per lb.	9	0	..	0	0	8
zoniac, Brit..... per cwt.	0	9½	..	0	9½	0
Al. 6 per cenader..... "	22	0	..	22	3	21
6	6	..	21	6	..	21
9	9	..	9	6	..	0

Saltpetre:—(cont.)	Last Month			This Month		
	s.	d.	s.	d.	s.	d.
Bengal, over 6 per cent..... per cwt.	21	0	..	21	9	20
British, refined..... "	27	6	..	29	0	26
Soda: Bicarbonate	9	3	..	0	0	9
Hwds.	45	0	..	0	0	45
Carbonate :						
Soda Ash .....per deg.	0	1½	..	0	0	0
Soda Crystals	61	3	..	0	0	61
Caustic	9	3	..	9	9	9
Hypomagnphite	8	0	..	0	0	8
Nitrate	14	3	..	0	0	14
Zinc Sulphate	12	0	..	14	0	12
SUGAR OF LEAD, White	36	0	..	0	0	36
Brown	26	0	..	0	0	26
VERDIGRIS	0	8	..	1	2	0
VERMILION, English	2	5	..	0	0	2
China	2	6	..	0	0	2
DRUGS:						
ALOES, Hepatic	60	0	..	140	3	60
Socotrine	55	0	..	160	0	55
Cape, good	51	0	..	62	0	52
Inferior	48	0	..	50	6	50
Barbadoes	45	0	..	120	0	45
Curaçoa	45	0	..	120	0	45
AMBERGRIS, grey	102	6	..	120	0	90
BALSAM—						
Canada	1	6	..	0	0	1
Capivi	2	4	..	2	8	2
Peru	13	0	..	14	0	13
Tolu	2	3	..	2	4	2
BARKS—						
Canella alba	16	6	..	22	0	16
Cascara	16	6	..	18	0	16
CINCHONA—						
Peru, gray	0	8	..	2	0	0
Calisaya, flat	2	0	..	3	6	1
quill	4	9	..	6	6	6
Cartibagua	0	5½	..	3	6	0
Columbian	0	5	..	4	6	5
Cuprea	1	11	..	3	0	2
New Granada	1	0	..	6	0	2
Pitayo & Maracaibo	0	4	..	2	9	0
Red	1	9	..	10	0	10
East India, crown	0	5	..	6	9	6
red	0	5	..	4	6	5
BUCHU LEAVES	0	5	..	1	5	1
CAMPHOR, China	80	0	..	0	0	80
Japan	82	6	..	0	0	85
Refin. Eng... per lb.	1	3	..	0	0	1
Tablets	1	3½	..	0	0	1
CANTHARIDES, China	2	0	..	2	2	0
Russian	3	6	..	3	9	3
CHAMOMILE FLOWERS	15	6	..	70	0	15
CASTOREUM	17	6	..	30	0	17
DRAGON'S BLOOD, Ip.	65	0	..	210	0	45
ERGOT OF RYE	1	9	..	2	0	0
FRUITS AND SEEDS (see also Seeds and Spices)						
Anise, China Star	95	..	0	0	97	6
Spanish, &c.	20	..	3	0	20	0
Beans, Tonquin	3	..	0	0	3	0
Cardamoms, Malabar, good	5	3	..	7	6	5
inferior	3	0	..	5	0	5
Aleppy	2	6	..	5	6	6
Madras	2	6	..	5	0	5
Ceylon	1	9	..	3	6	3
Malabar sorts	4	9	..	6	6	6
Cassis Fistula	6	6	..	20	0	9
Cocculus Indicus	10	0	..	11	0	10
Colocynth, apple	0	9	..	1	9	1
Croton Seeds	50	0	..	55	0	50
Cubeb	150	0	..	200	0	0
Cumin	35	0	..	36	0	35
Fenugreek	9	0	..	12	0	9
Juniper Berries	9	6	..	10	6	10
Nux Vomica	8	6	..	10	0	8
Tamarinds, E. India	6	9	..	14	0	6
West India	9	0	..	13	0	10
Vanilla, large	17	0	..	27	0	16
inferior	4	6	..	16	6	6
HONEY, Chilli	40	0	..	53	0	40
Jamaica	34	0	..	46	0	34
PECACUANHA	4	0	..	4	8	3
ISINGLASS, Brazil	2	5	..	4	6	2
Tongue sort	2	6	..	5	7	2
East India	0	6	..	5	0	6
West India	2	4	..	4	8	2
Russ. long staple	7	0	..	10	3	7
inferior	0	0	..	0	0	0
Simovia	2	2	..	2	4	2
JALAP, good	0	10	..	1	0	1
infer, and stems	0	7	..	0	9½	0
LEMON JUICE	0	0	..	0	0	0
LIME JUICE	1	5	..	1	9	1
LIQUORICE, Spanish	0	0	..	0	0	0
Liquoriced Root	0	0	..	0	0	0
MANNA, daky	4	6	..	5	0	4
Grain	20	0	..	74	0	30
Yunan pod	40	0	..	65	0	45
Yunan pod	30	0	..	36	6	30
OILS (see also separate list)						
Almond, expressed	1	5	..	0	0	0
Castor, 1st pale	0	3½	..	0	4½	0
second	0	3½	..	0	3½	0
Cod-liver	6	6	..	8	0	6
..... per gall.	6	6	..	6	6	8

	Last Month		This Month			Last Month	
	s. d.	s. d.	s. d.	s. d.		£ s. d.	£ s. d.
Essential Oils :					Oils :-(cont.)		Last Month
Almond	per lb.	30 0	to 0 0	30 0	to 0 0	27 0	to 29 10
Anise-seed, star	"	8 0	.. 0 0	7 6	.. 0 0	23 0	.. 26 10
German	"	10 6	.. 0 0	11 v	.. 0 0	73 0	.. 74 0
Bergamot	"	8 6	.. 9 0	7 3	.. 0 0	31 0	.. 0 0
Cajeput	per bott.	3 0	.. 3 4	3 0	.. 3 4	28 0	.. 29 0
Caraway	per lb.	3 0	.. 6 6	3 v	.. 6 6	yellow	27 0
Cassia	"	3 11	.. 4 0	3 11	.. 4 0	brown	23 0
Cinnamon	per oz.	5 6	.. 0 0	1 8	.. 3 0	East India, Fish	0 0
Cinnamon-leaf	"	0 2½	.. 0 3	0 2½	.. 0 3	Gioja	40 0
Citronelle	"	0 2½	.. 0 0	0 2½	.. 0 0	Levant	38 10
Glove	"	6 6	.. 6 9	6 0	.. 0 0	Mogador	38 0
Juniper	"	0 0	.. 0 0	1 3	.. 8 0	Spanish	40 0
Lavender, Exotic	per lb.	2 6	.. 6 9	2 6	.. 6 9	Sicily	40 0
Mitcham	"	120 0	.. 125 0	120 0	.. 125 0	COCOANUT, Cochin	34 10
Lemon	"	9 0	.. 10 6	8 3	.. 8 6	Ceylon	28 0
Lemongrass	per oz.	0 2½	.. 0 0	0 2½	.. 0 0	Mauritius	28 10
Neroli	"	6 6	.. 9 6	6 6	.. 9 6	PALM, fine	33 0
Nutmeg	"	0 5	.. 0 6	0 5	.. 0 6	LENSEED	25 0
Orange	per lb.	7 3	.. 11 3	6 6	.. 9 0	RAPESEED, English, pale	30 0
Otto of Roses	per oz.	18 0	.. 4 0	18 v	.. 40 0	brown	28 0
Patchouli	"	2 0	.. 4 1	1 4	.. 2 6	COTTONSEED	26 0
Peppermint :					LARD	60 0	
American	per lb.	12 6	.. 0 0	11 6	.. 0 0	TALLOW	26 10
(H.G. Hotchkiss)	"	13 0	.. 0 0	12 6	.. 0 0	TURPENTINE, American per cwt.	49 0
English	"	24 0	.. 25 0	23 0	.. 0 0	PETROLEUM, refined	0 5 2
German	"	13 9	.. 0 0	13 9	.. 0 0	Spirit	0 7
Japan	"	9 0	.. 11 0	7 0	.. 8 0	OPUM, Turkey	120 0
(Cocking's)	"	11 0	.. 0 0	10 0	.. 10 6	and fine	2 6
Rosemary	"	3 0	.. 0 0	3 0	.. 0 0	Milding to fair	1 9
Sassafra	"	2 6	.. 0 0	2 6	.. 0 0	ROOTS—Calumba	16 0
Spearmint	"	9 0	.. 10 0	10 0	.. 11 0	China	22 0
Thyme	"	1 9	.. 4 2	1 9	.. 4 2	Chiretta	0 10
Mace, expressed	per oz.	0 2	.. 0 3	0 2	.. 0 3	Cus Cus	10 6
OPUM, Turkey	per lb.	14 0	.. 16 6	14 0	.. 16 6	Galangal	20 0
inferior	"	8 0	.. 13 6	12 0	.. 13 6	Gentian	19 0
QUASSIA (bitter wood) per ton		80 0	.. 100 0	80 0	.. 100 0	Orris	30 0
RHUBARB, China, good					Pellitory	42 0	
and fine	per lb.	2 6	.. 4 0	2 6	.. 4 0	Pink	1 10
Milding to fair	"	1 9	.. 2 3	1 9	.. 2 3	Rhatany	0 2
ROOTS—Calumba	per cwt.	16 0	.. 25 6	16 0	.. 24 0	SCAMMONY, Valencia	50 0
China	"	22 0	.. 24 0	22 0	.. 24 0	SARSAFRAS, Lima	0 5
Chiretta	per lb.	0 10	.. 1 0	0 5	.. 0 9	SARSAFRAS	52 5
Cus Cus	per cwt.	10 6	.. 11 6	10 0	.. 11 0	Guayaguil	1 5
Galangal	"	20 0	.. 23 0	20 0	.. 23 0	Honduras	1 4
Gentian	"	19 0	.. 21 0	19 0	.. 21 0	Jamaica	1 7
Orris	"	30 0	.. 75 0	25 0	.. 70 0	SASSAFRAS	0 0
Pellitory	"	42 0	.. 60 0	42 0	.. 60 0	SCAMMONY, Virgin	35 0
Pink	per lb.	1 10	.. 2 0	1 10	.. 2 0	second and ordinary	50 0
Rhatany	"	0 2	.. 0 4	0 2	.. 0 4	SENNA, Bombay	0 1
Seneka	"	2 9	.. 0 0	2 9	.. 0 0	Tinnivelly	0 1
Snake	"	1 8	.. 1 10	1 8	.. 1 10	Alexandria	0 1
SAFFRON, Valencia	"	50 0	.. 52 5	50 0	.. 52 0	SPERMACETI, refined	0 10
SARSAFRAS, Lima	per lb.	0 5	.. 0 6	0 5	.. 0 6	American	0 9
Guayaguil	"	1 5	.. 1 7	1 5	.. 1 7	SQUILLS	0 1
Honduras	"	1 4	.. 1 8	1 4	.. 1 8	GUMS.	
Jamaica	"	1 7	.. 2 2	1 3	.. 2 2	AMMONIACI, drop	per cwt.
SASSAFRAS	per cwt.	0 0	.. 0 0	0 0	.. 0 0	African	1 10
SCAMMONY, Virgin	per lb.	35 0	.. 40 0	30 0	.. 32 0	Bengal	2 13
second and ordinary	"	10 0	.. 50 0	19 0	.. 28 0	Malabar	3 6
SENNA, Bombay	"	0 1	.. 0 3	0 1	.. 0 3	Cochin	36 0
Tinnivelly	"	0 1½	.. 1 2	0 1½	.. 1 2	PEPPER, Black, Malabar	0 5 2
Alexandria	"	0 1	.. 1 0	0 1½	.. 1 0	Singapore	0 5
SPERMACETI, refined	"	0 10	.. 1 0	0 10	.. 1 0	White	0 7 2
American	"	0 9	.. 0 0	0 9	.. 0 0	Cayenne	0 8
SQUILLS	"	0 1	.. 0 1½	0 1	.. 0 1½	MACE, 1st quality	1 5
GUMS.					2nd and inferior	1 3	
AMMONIACI, drop	per cwt.	£ s. d.	£ s. d.	£ s. d.	NUTMEGS, 78 to 80 lbs	2 5	
ANIMI, fine washed	"	1 10	.. 2 5	1 10	.. 2 5	90 80 "	2 2
sorts	"	17 0	.. 20 0	17 0	.. 19 0	132 95 "	2 0
ARABIC, pale picked	"	10 10	.. 14 10	11 10	.. 14 10	PIMENTA	0 3 2
sorts, mid. to fine	"	1 13	.. 1 16	1 13	.. 1 16	VARIOUS PRODUCTS.	
TURKEY, pick. go to fin.	"	1 9	.. 1 12	1 9	.. 1 12	COCHINEAL—	
second & inferior	"	5 0	.. 7 0	5 10	.. 8 10	Honduras, black	0 0
sorts	"	2 0	.. 4 15	2 5	.. 5 0	Mexican, silver	0 0
ASSAFETIDA, cm. to fin.	"	2 0	.. 2 5	1 15	.. 2 0	Teneriffe, black	0 0
BENJAMIN, Siam, 1st	"	0 10	.. 3 10	0 10	.. 3 10	silver	1 5
& 2nd	"	15 0	.. 30 0	15 0	.. 30 0	'GALLS, Tky blue	60 0
Sumatra	"	5 0	.. 10 10	5 0	.. 10 10	China	96 0
COPAL, Manilla	"	15 0	.. 75 0	15 0	.. 70 0	INDIGO, Bengal	3 9
Angola, red	"	142 6	.. 150 0	142 6	.. 150 0	Madras	1 2
DAMMAR, pale	"	90 0	.. 100 0	95 0	.. 95 0	Kurpah	1 6
EUPHORIUM	"	20 0	.. 24 0	20 0	.. 24 0	Oude	2 6
GALBANUM	per lb.	0 3	.. 0 10	0 3	.. 0 10	Guatemala	3 4
GAMBoge, picked pipe	per cwt.	295 0	.. 352 6	295 0	.. 360 0	ROSIN, American	7 0
GUAIACUM	per lb.	0 9½	.. 2 0	0 9½	.. 2 0	SOAP, Castile	23 0
KINO	per cwt.	57 0	.. 80 0	57 0	.. 70 0	SOY, China	1 11
KOWRIE, sorts	"	50 0	.. 60 0	50 0	.. 60 0	WAX, BEES, English	£ 28
selected	"	165 0	.. 210 0	160 0	.. 240 0	Jamaica	5 10
MASTIC, picked	per lb.	2 6	.. 3 9	2 0	.. 3 6	East India	5 10
MYRRH, good and fine	per cwt.	102 6	.. 135 0	1 2 6	.. 135 0	VEGETABLE, Japan	2 9
ordinary to fair	"	70 0	.. 1 0 0	70 0	.. 100 0	WOOD, DYE, Bar.	3/12/6 ..
OLIRANUM, p. drop	"	50 0	.. 65 0	49 0	.. 64 0	Brazil	0 0
amber & yellow	"	44 0	.. 49 0	44 0	.. 48 0	Cam	18 0
SENEOAL	"	30 0	.. 40 0	30 0	.. 40 0	Fustic, Cuba	0 0
SANDARAC	"	117 6	.. 127 6	110 0	.. 122 6	Jamaica	5 10
Liver	"	93 0	.. 120 0	122 6	.. 140 0	Logwood, Campeachy	7 0
THUS	"	15 0	.. 17 0	15 0	.. 17 0	Jamaica	4 7/8
TRAGACANTH, leaf	"	280 0	.. 400 0	280 0	.. 400 0	LIMA, first pile	10 5
in sorts	"	40 0	.. 270 0	40 0	.. 270 0	RED SANDARS	7/12/6 ..
OILS.							
SEAL, pale	per tun	£ s. d.	£ s. d.	£ s. d.	£ s. d.		
		30 0	.. 31 0	32 0	.. 33 0		



THE SALE OF POISONS.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

As I have asked for opinions with respect to the sale of poisons, so following as the result of my experience. I consider that the Pharmacy Act relating to the sale of poisons has been produced, and the list of poisons enumerated in Part II. should be added to include all drugs and preparations of a dangerous kind. In my opinion that medical men should not be allowed to dispense poisons. Any medicine containing a scheduled poison should be dispensed by a third and disinterested party. There is no check whatever upon those who dispense their own medicines, and circumstances would in my experience warrant me in saying that it would be of the public if medical men were (as they are in France) forbidden from mixing their own medicines.

poison cases have occurred through the promiscuous use of medicines: I would, therefore, advocate the abolition of the same thereby bringing all patent medicines containing poisons out of the list of poisons in the Pharmacy Act.

es Lancast., Manchester, I am, yours very truly,
April, 1882.

THOMAS C. E. OSBORNE.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

In reference to the sale of poisons, may I be allowed to state my strong deprecate any further interference or restrictions on poisons. It is already the highest interest, as it is the chemist to regulate strictly the sale of poisons.

creatively of the established members of the trade should be trusted, their interest in every way to prevent and avoid all cases of and constantly use the utmost care and diligence in the sale of poisons.

had 32 years' experience in the drug trade, and have always found ready to meet all the requirements of the law, and amenable to control of their chemist.

also suggest that the exemption should still be allowed on all proprietary medicines containing poisons or poisonsous substances, so long as the directions give fully the maximum doses. For many years distributed a great number of patent medicines counterfeited and I can speak to the general good and benefits consequent and repeated purchases of the same.

I remember that the few medicines of merit only come to

many die a natural death. I would therefore respectfully

recommend to the Government to encourage and allow the sale of all a progressive and free-trade principle.

I beg to remain, sir, yours truly,

Lincoln April 25. J. W. MOODY.

JAPANESE MENTHOL.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

you The Report, page 181, of your issue of April 15, you say these new crystals are now on the market at 1s. per lb. We inform you that we have had for a few weeks now a shipment of which are offering at 9s. per lb.

his, we might take the liberty to point out that four tins of were offered at the auction sales by brokers, and were bought 9s. to 9s. per lb.: see *Public Ledger* Drug Report of April 6

in the interest of the trade, that you will kindly mention the next time.

We remain, sir, yours truly,

THOMAS CHRISTY & Co.

we Rep. was quite correct in this matter. We stated that was asked for a special brand.—ED. C. & D.]

Anisic—Sheffield correspondent, who does not identify himself, makes the following curious observation:—"I have not seen it so far as it does not freeze or become solid if kept in a green glass bottle. I have several tins, and found that if samples of the same oil are side by side in green and flint glass bottles, the one is frequently the other fluid and ready for use."

THE CURRICULUM.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

curriculum is experiencing a good deal of criticism, thing noticed from my own point of view I send

that it is a great mistake; and, to begin at the preliminary examination should be passed at the place facilities for study within the reach of his

apprentice, and assist him in every reasonable way. If the apprentice is wise enough to grasp his opportunities the end of his apprenticeship should see also the end of the preparation for the Minor examination. Of course all apprentices will not apply themselves, but I fail to see why those that will work should "pay the piper" on account of those who will not—for this would be the result of the proposed rule.

I am old enough to remember the time when examination was not compulsory, and recollect what a small minority of young men—I am here speaking simply of my own experience—employed their evenings in reading up. I remember, too, the change that took place when the examination-day was a future certainty to all—how young men thought advisable to make some preparation for it, and how masters were pleased to see their young men developing into students, and becoming, in some measure, able to substitute some knowledge of principles for the old "rule of thumb." Having these recollections, and contrasting the present with the past, I have congratulated myself on the improvement in the present.

Now, if we desire a return to the old working of things, all we require is the adoption of the compulsory curriculum. Were I on the Council—which, thank goodness! I am not—I should feel it my duty to oppose this new scheme by every fair means in my power. It shuts up the books of the assistant, and sends the apprentice to sleep over his. The master suffers by the altered habits of his young men, and by the ignorance of all but those already examined. Should he keep an apprentice, he finds his functions as an educator assumed by a "recognised school." The promises he has made in signing the indentures, and his legitimate and worthy ambition of turning out a young man capable of passing the Minor, are gone.

For my own part, in choosing assistants, I prefer young men that have passed their examination direct from their situation, unaided by any school, recognised or otherwise; and when I recollect the keen delight I have experienced on assistants of my own passing in this manner, and how sound and permanent the knowledge gained in this way seemed to be, I feel that the proposed rule is altogether contrary to my principles, ideas, and experiences.

It is impossible here to discuss "all sorts and conditions of men." There are those who would stick to their books under any circumstances whatsoever, and there are those to whom even six years in a recognised school would not suffice. My remarks relate to the average assistant or apprentice, at a period in which enjoyment of life is keen, but to whose powers alike moral and mental home study is salutary, but at the same time somewhat distasteful and needing incentive.

I am reluctant to believe the examiners incapable of judging the extent and accuracy of a candidate's knowledge. If necessary, extend the ordeal and multiply the inquisitors, but do not create a barrier that is really such only to the poorer, but not the less worthy, of our community.

THOMAS PADWICK.

Mr. O. V. Morgan, who has lately been travelling in Japan, sends us the subjoined card of a native druggist whose acquaintance be made at Tokio



Any enterprising firms who may wish to open up relations with Mr. Ichizaemon are advised to write in Japanese, as he does not understand any English.

6/17. "A Country Subscriber" does not give his name, and we do not usually reply to anonymous queries. We should say, however his preparation is undoubtedly liable to stamp duty.

LONDON EXPERIENCE.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST"

"Another Country Assistant who has had London Experience" (454) is very angry at the "weak and vapid twaddle" which we published last month over the signature of "Eusticus." He knows for a certainty that many of the leading firms, as well in the City as in the West-end, do not insist upon London experience as a sine qua non of entrance to their establishments. And he further insists that it is absurd to suppose that to dress like a la-di-da enhances one's prospects of success. All that is needful is that one should present a neat and genteel appearance, and this is as

ZINCI OXYD. PUR.

(HARRIS'S).

GUARANTEED TO ANSWER ALL THE B.P. TESTS,
1 lb., 2 lb., 4 lb., 7 lb., 14 lb. and 28 lb. Boxes. Boxes Free.
1/- per lb.

SPECIAL QUOTATIONS TO LARGE BUYERS.

• PLEASE NOTE—EVERY PACKAGE HAS OUR LABEL AND SEAL UPON IT.

KEPT IN STOCK BY THE FOLLOWING WHOLESALE DRUGGISTS:—

Less & Webb, London. | Evans, Sons & Co., Liverpool. | Duncan, Flockhart & Co., Edinburgh. | Whitehead, Holbrook & Co., Manchester.
" " Boileau & Boyd, Dublin. | Bastin, Alfred, Manchester. | Woolley, Sons & Co., "

LIST OF OUR SPECIALITIES ON APPLICATION.

PHILIP HARRIS & CO.,

MANUFACTURING WHOLESALE & EXPORT CHEMISTS, BIRMINGHAM.

LEGANT! GOOD! SALEABLE!

RIDE PRICE:

4s. per gross.

LARG AND AS PRETTY AS

ANYN THE MARKET.

TRADE PRICE:

48s. per gross.

F. NEWBERY & SONS,

1 King Edward Street, Newgate Street,

LONDON.

**PULVERMACHER'S
GALVANIC CHAIN-BANDS, BELTS, AND BATTERIES**

(RECENTLY IMPROVED)

Approved by the Academy of Medicine of Paris, and other Medical Authorities in England and Abroad.

IT is well known, depends upon the normal functions electric fluid governing the whole economy; any derangement of the system manifests itself, according to the locality, by some ailments, such as

Asthma	Local Debility
Bronchitis	General Debility
Paralysis	Female Complaints
Epilepsy	Mental and
Rheumatism	Physical Weakness
Gout	Functional Disorders
Constipation	&c., &c.

PULVERMACHER'S GALVANIC CHAIN-BANDS, by electric deficiency, constitutes Nature's most congenial agents referred to, embodying a host of remedies in one successful experience has proved the marvellous remedial appliances, even in cases defying ordinary treatment.

PRICE**GALVANO-PILINE CHAIN-BANDS.**

BROW GAIN-BANDS for Sciatica, Rhenmatic, Neuralgia, and Rheumatic Complaints, Local Paralysis, and Cramp in the extremities, according to Electric Power.

DAD CHAIN-BANDS or BELTS for Lumbago, Indigestion, Liver, and Nervous Complaints, &c., wearable as a Belt.

DAD CHAIN-BANDS for Nervous Deafness, Head, Tooth, and Ear Aches, &c., 22s., 30s., 40s., and 50s.

DAD CHAIN-BANDS for Loss of Voice and other Affections of the Throat, Throat, and Ear Complaints, 21s. and upwards.

DAD CHAIN-BANDS for Writers' Cramp, Trembling, Nervousness, &c., 10s. 6d., 18s., 22s., and 40s.

during a Warm and Comfortable Application, free from possible counter-irritation, any of the above Band can be Felted, if required, at an extra cost of from 1s. upwards.

THE CONTINUOUS VOLTA-ELECTRIC CURRENTS, rendered most conveniently self-applicable by recent improvements of these Chain-Bands, although applied externally, penetrate to the innermost organs, promoting digestion, circulation, and nutrition, and perform their recuperative and restorative work in a silent, natural way, devoid of the costliness, uncertainty and inconvenience of ordinary treatment, or of any unpleasant sensation or shocks, counter-irritation, &c.

Even a Five Shilling Band of the minimum electric power evinces its genuineness by deflecting a telegraphic needle at many miles' distance, whilst those of superior price and power produce all the physical, chemical, and physiological phenomena possessing the famous curative powers of the voltaic battery, enhanced by their great portability.

Mr. PULVERMACHER refrains from advancing statements of his own in favour of his Medico Galvanic Appliances, but confines himself mainly to quotations from the opinions of competent medical and scientific authorities, including Sir C. LOCOCK, Bart., M.D., F.R.C.S.; Sir HENRY HOLLAND, Bart., M.D., F.R.C.S., and F.R.S.; Sir J. R. MARTIN, Bart., C.B., F.R.C.S., F.S.A., and F.R.S.; Sir W. FERGUSSON, Bart., M.D., F.R.S., F.R.C.S., &c., reproduced in Pamphlet, post free.

L I S T .F. COMBINED BANDS for General Debility, Central Paralysis, Epilepsy and Functional Disorders..... 40s., 50s., and 60s.
COMPLETE SET, WITH BELT AND VOLTA-ELECTRIC BATTERY. £5, £8, and £10 10s.**CHAIN BATTERIES.**

G. CHAIN BATTERIES for Extreme Nervous Debility, Paralysis, and for Restoring Exhausted Vital Energy (to be used in conjunction with specially combined Bands) £3 10s. to 5 guineas.

H. INTENSITY BATTERIES for Treatment by Electric Baths in the Patient's own Bedroom in various cases, for Paralysis, Want of Power, &c., and for eliminating poisonous substances from the system (lead and mercury), 120 elements £6 6s.

PAMPHLET POST FREE ON APPLICATION.

L. PULVERMACHER, 194 Regent St., London, W.
most Liberal Reduction allowed to the Medical Profession, Chemists and Druggists, and Hospitals.

TO CHEMISTS AND DRUGGISTS

AESCULAP

THE PALATABLE APERIENT WATER.

DIRECT FROM THE CELEBRATED SPRING IN HUNGARY

*Comparative Analyses of Aperient Mineral Waters by Professor TICHBORNE
F.C.S., LL.D., President of the Pharmaceutical Society of Ireland, c.*

	Æsculap.	Friedrichshall.	Hunyadi János
Sulphate Magnesium	1750·3	641·38	1563·0
" Sodium	1340·7	715·35	1579·7
Ammonia (free)	0·3	.....	trace
Sulphate Potassium	3·5	25·18	73
" Calcium	185·6	171·30	..
Chloride of Sodium.....	301·3	997·22	1051
Bicarbonate	140·3	.....	512
Carbonate Calcium	1·9	}	601
" Magnesium	12·0		
" Iron	3·5		
Alumina	5·6	.....	0·9
Nitrates (minute trace) .....	.....	.....	..
Silica.....	1·8	4·40	0·0
Bromide Magnesium .....	.....	2·75	..
Chloride .....	.....	501·14	..
Carbonate Strontium .....	.....	.....	0
Total.....	3746·6	3079·74	3370·6

While "Æsculap" is as rich in Salts of Sodium and Magnesium as any known Mineral Water contains more Antacids and less Potassium Salts. It therefore combines all the purgative properties with greater alkalinity and less of the debilitating action of other aperients. Moreover, it is the most palatable of any of its class.

Herr JOHANN MOLNAR, Government Analyst of the Hungarian Kingdom, in a Report to the Academy of Science, states that:—Æsculap is among the strongest of the Aperient Waters of Buda, and in consequence of its purity and clearness will be employed for medicinal purposes with satisfaction."

Professor TICHBORNE, in his report on the Chemistry of the Aperient Mineral Waters, says:—"It will be found a valuable list of purgative waters, as it is pure. The Æsculap spring possesses the decided advantage that it is not so unpleasant to taste as other bitter waters, and is free from organic impurity."

Dr. PROSSER JAMES, Lecturer on Materia Medica and Therapeutics at the London Hospital, and Physician to the Hospital for Diseases of the Throat and Chest, says, in his report on the Therapeutics of Mineral Waters:—"The Æsculap spring may claim to be the best group, for, with only five grains less of purgatives than the highest, it is three times as rich in antacids. It contains three times as much sodium as the other Hungarian waters named."

Dr. A. ERNEST SANSOM, F.R.C.P., Physician to the London Hospital, and Senior Physician to the North-Eastern Hospital for Diseases of the Heart, says:—"I have tried the Æsculap Mineral Water, and consider it of very high value as a saline aperient. I consider it better suited to children than the majority of mineral waters of this class. It is less nauseous, whilst its action is all that could be wished."

Dr. HENRY LLEWELLYN WILLIAMS writes:—"I can confidently recommend the Æsculap Water as an aperient of rapid and certain, and unaccompanied by pain. It is not nearly so nauseous as many similar waters, whilst the addition of a few drops of hot milk renders it palatable even to children."

Dr. W. DOMETT STONE writes:—"I frequently prescribe your Æsculap Water, and find it to be all you claim for it." Surgeon-Major L. F. OSBALDESTON writes:—"Thanks for your kind present of a sample of Æsculap, of which I can fully judge, having taken the whole of it. I find it speedily effectual, most palatable, and, if taken about six in the morning, so as to ensure free action, about nine or ten, a person after that hour might take a long journey with comfort."

Dr. CHARLES J. WHITE writes:—"I find it by experience to be all that is claimed for it—a gentle but effective aperient with very little taste, and it will bear favourable comparison with other mineral waters of the same class, notably the Hunyadi János Water, which it exceeds somewhat in activity."

From the LANCET.—"Æsculap Bitter Water.—The activity of this powerful mineral water depends mainly on the large quantity of sodium and magnesium it contains. It has been found to be a very efficacious aperient, and appears to act more rapidly than any other which it has been compared."

CIRCULARS AND SHOW CARDS FREE ON APPLICATION.

Retail Price, 1s. 6d. and 2s. per Bottle. Send for Price List.

ÆSCULAP BITTER WATER CO. (LIMITED)
SARACEN'S HEAD BUILDINGS, SNOW HILL, LONDON, C.

FIELD'S LIQUOR TARAXACI

Concentrated IN VACUO to a

high double that of the Succus Taraxaci of the Pharmacopœia.

The process by which this preparation is manufactured entirely excludes the injurious effects of Oxidation, and Fermentation. The active constituents remain quite uninjured; and, owing to the method by which any incipient change is guarded against during the manufacture, this preparation is perfectly, whilst the expressed Juice of the British Pharmacopœia, although containing 25 per cent. of Spirit, quickly becomes mawkishly sweet, through the conversion of its active constituents into cochine matter.

Price 4/- per lb. W. Qts. 3/10.

FIELD'S LIQUOR CINCHONÆ CORDIFOLIAE

This well-known preparation contains the whole of the active ingredients of Bark, and is manufactured with great care by a process specially devised for that purpose. It is made from the best and will be found a great desideratum to Druggists and Medical Men, as it furnishes a ready means of preparing Decoction of Bark quite equal to that made from fresh Bark.

Thirty minims of this Preparation, diluted to an ounce (with distilled water), forms the Decoction Cinchonæ Flavæ of the Pharmacopœia.

Price 10/- per lb

LIQUOR CINCHONÆ RUB.

1 fl. oz. equal to 1 oz. of Best Red Bark.

Price 10/- per lb.

Preparation is made from the very finest Red Bark, and is guaranteed to contain a high percentage of Alkaloids and the natural Acids of the Bark.

derable use as a remedial agent in chronic intemperance, and is prescribed for that purpose by several of our physicians.

LEAVER & CO. beg to call special attention to the following preparations. They may be depended upon for being the best drugs, and will keep for any length of time without formation of unsightly deposits.

Conc.	... ...	3/6 per lb.	Ext. Ergotæ Liq.	... ...	... ...	4/6 per lb.
o. Conc.	... ...	1/6 "	" Sarsæ.	... ...	... ...	9/6 "
"	... ...	3/6 "	" " " Specially purified from all			
"	... ...	1/6 "		mucilaginous matter	... ...	12/- "
Conc.	... ...	4/- "	" Glycyrrhizæ Liq.	... ...	... ...	2/8 "
"	... ...	4/6 "	Succ. Taraxaci, B.P...	... ...	... ...	2/- "

Warranted very active 1/6 " | Liq. Sennæ Dulc. | 2/6 " |

Special attention is called to these preparations, which are made entirely from Alexandrian Senna.

Can be obtained of all Wholesale Houses, or direct from the Manufacturers,

LEAVER & CO.
 (Late J. J. FIELD),
 WHOLESALE PHARMACEUTICAL CHEMISTS,
 JLTON SQUARE, KING'S ROAD, CHELSEA.

ESPCIAL.—Concentrated Infusions, Liquid Extracts, &c., prepared in vacuo from selected drugs only, at prices same as charged by all Wholesale Houses.

FOREIGN SPECIALITIES AND MEDICINES.

ROBERTS & CO.FOREIGN AND ENGLISH CHEMISTS, WHOLESALE IMPORT AND EXPORT AGENTS
FOREIGN MEDICINES AND PATENTS,

76 NEW BOND STREET, LONDON.

Messrs. Roberts & Co. beg to inform the Trade that they are Agents for all the principal French and Foreign Medicines, a large supply of which they have always on hand, and can supply on very favourable terms. They daily communication with their Paris House, and can offer exceptional facilities for procuring New Medicines, with very little delay.

The following is a list of a few that they name *au hazard*, and that have a large sale:—

Retail	Per doz.	Retail	Per doz.	Retail	Per doz.	Retail
6/0.. Alcool de Menthe Ricqles	.42/	4/6.. Capsules Raquin	.30/	2/1.. Grimant's Syrups	.22/	6/0.. Rabuteau's Eli
2/9.. Ditto ditto	.21/	4/6.. Mathey Caylus	.22/	2/3.. Guyot's Gondron	.17/	3/6.. Sir
3/6.. Aubergier's Syrup	.27/	4/6.. Chassaigne's Wine	.36/	1/1.. Laville's Gout Tincture	.84/	4/0.. Racahout
1/9.. Pâté	.13/	2/9.. Pills	.25/	1/1.. Pills	.84/	5/0.. Reynal's Bong
6/6.. Bay Rum	.54/	4/6.. Clin's Bromide Camph. Caps	.45/	2/3.. Papier Fayard	.13/	3/6.. Ricard's Injec
3/6.. Ditto	.27/	4/6.. " Drages	.45/	1/1.. Ditto	.6/6	4/6.. Capa
2/0.. Belloc's Charcoal	.16/	2/9.. Dusart's Syrups	.27/	4/6.. Papier Franeau	.27/	8/0.. Syrup
1/9.. Lozenges	.13/	4/6.. Wines	.36/	2/3.. Ditto	.15/	2/0.. Star Paper
4/6.. Blanckard's Pills	.30/	5/0.. Eau Boto	.42/	1/9.. Pâté Aubergier	.13/	2/9.. Tamar Indian
2/9.. Ditto	.18/	3/0.. Ditto	.26/	1/9.. " de Georgé	.13/	2/9.. Vallet's Pills
4/6.. Brou's Injection	.24/	2/3.. Espic's Cigarettes	.15/	1/1.. Ditto	.8/	1/9.. Ditto
4/6.. Bugeaud's Wine	.36/	2/9.. Flon's Syrup	.23/	1/9.. " de Berthé	.15/	4/6.. Veloutine (Wt)
4/6.. Bully's Vinegar	.33/	2/6.. Gayetty's Paper	.18/	1/9.. " de Nafé	.13/	3/6.. Ditto
2/6.. Ditto	.17/	2/3.. Granules Arsen. Acid	.15/	1/9.. " Regnault	.13/	3/0.. Vichot's Troc
4/6.. Candé's (Lait Antiphilique) 40/		2/3.. " Iron	.15/	7/0.. Pierlot's Valerian	.54/	4/6.. Valentine's M
4/6.. Capsules Bromide of Camph. 45/		2/3.. " Soda	.15/	2/9.. Rabuteau's Dragees Ferrug.	.27/	4/6.. Vin Mariani
4/6.. " Matico	.30/					

The above Wholesale prices do not include stamps; in those cases where they are necessary they will be supplied and charged tra

MM. Roberts & Cie. ont l'honneur d'informer MM. les Pharmaciens Spécialistes de France et de l'Étranger qu'ils leur disposition pour des dépôts qu'ils voudraient établir à Londres. On peut avoir tous renseignements en s'adressant à leur maison de Londres ou à Paris.

House in Paris, ROBERTS & CO., Place Vendome

ESTABLISHED 1823.

Since the introduction of Pepsine by BOUDAULT and DR. L. CORVISART, BOUDAULT'S Preparations have been the most reliable.

BOUDAULT'S PEPSINE,

Under the form of PEPSINE WINE and PEPSINE POUDRE

The Paris Hospitals have used no other.



The Jury of the International Exhibition, Paris, 1867, awarded to BOUDAULT's Preparations the only Medal given for Pepsine. Since taken the Medal at each of the International Exhibitions—Havre, 1868; Lyons, 1872; Vienna, 1873; Philadelphia, 1876; Paris, 1878; and Melbourne, 1880.

HOTTOT-BOUDAULT, 7 Avenue Victoria, PARIS. SQUIRE, 413 Oxford Street, LONDON.
CAN BE HAD OF ALL CHEMISTS.

J. F. PFAHLER,

Commission Merchant,

MANNEIM (GERMANY),Supplies at lowest to Wholesale Buyers only
every kind of German**DRUGS AND CHEMICALS.**

Special quotations on application.

ANTHONY DAVIDSON,**WHOLESALE CHEMIST & DRUGGIST,****KIMBERLE,****DIAMOND FIELDS, SOUTH AFRICA.**

W. SEARLE & SON, Cape Town
LANDING AGENTS P. HEUGH & CO., LTD, Eliz
and East London

ATHGATE & CO.,

Wholesale and Dispensing
CHEMISTS AND DRUGGISTS,
HIMISTS TO THE VICEROY,
CALCUTTA

(ESTABLISHED 1811),
ARE WILLING TO ACCEPT AGENCIES

OR NEW SPECIALITIES.

London Agents—ALEX. LAWRIE & CO.,
14 St. Mary Axe, E.C.

GENUINE THIBET MUSK. PHENIX" SEASON BAND,



SEASON
1881.

Gained, and
Guaranteed Pure by
YTES & CO.,
The Cervoy's Chemists,
SIMLA (HIMALAYAS).

The above Brand is received direct from SIMLA (in GRAIN only).
now up in bottles of only one size, each containing $\frac{1}{2}$ oz. avo'drupois.
No. 31. to bottles, 40'; four bottles, 75'. For 4 oz. (16 bottles) and upwards,
70' per ounce.
NC & CO., 192 Aldersgate St., LONDON.

A. S. WATSON & CO.,
holsale, Retail, and General Chemists, Importers of Proprietary Medicines,
Druggists' Sundries, Perfumery, &c., &c.

Aerated Water Manufacturers,
porters of Manila Cigars and
root and Chinese Products of
all descriptions.

SPECIALITIES.

Tong Pang Chong, a Native Remedy
for Ringworm.

Camphor Wood Oil, an excellent substitute for
Cajuput Oil.
Chinese Complexion Tablets.
" and Japanese Tooth Powders.
" Peppermint Oil.

THE HONG KONG DISPENSARY, HONG KONG ESTABLISHED 1841.
at CANTON, FOOCHOW, SHANGHAI, and MANILA. London Office—106 FENCHURCH STREET, E.C.

E. B. JONES,
HEIIST AND DRUGGIST,
EVERCARGILL, NEW ZEALAND,
glad to receive full particulars
NOVELTIES, which he has good
facilities for introducing.

HINES, MATHEW & CO.,
WHOLESALE DRUGGISTS,
COMMISSION AGENTS, IMPORTERS,
AND SUNDRYMEN,

CAPE TOWN.
LONDON AGENTS—
MESSRS. DAVIS & SOPER,
RY STREET, ST. MARY AXE, E.C.

E. PLOMER & CO.,
CHEMISTS TO THE VICEROY OF INDIA,
SIMLA and LAHORE,

Will be pleased to hear from Manufacturers and others desiring to introduce Specialities and Novelties,
&c., into India.

London Agents—MESSRS. A. DURANT & CO.,
89 Gresham Street, E.C.

BALL, HOBSON & CO.,
PHARMACEUTICAL CHEMISTS,
THE MALL, UMBALLA, INDIA.
AGENCY FOR SPECIALITIES
AND TRADE NOVELTIES.

LONDON AGENTS:
Messrs. SAM'L. FITZE & CO., 70 & 71 Bishopsgate St. Within.

A. M. BICKFORD & SONS,
WHOLESALE DRUGGISTS AND
GENERAL IMPORTERS,
ADELAIDE, SOUTH AUSTRALIA.
Cordial & Aerated Water Manufacturers.

PROPRIETORS OF BICKFORD'S COUGH ELIXIR.

G. de CAYCEDO & CO.,
COMMISSION MERCHANTS, AND EXPORTERS OF
COFFEE, HIDES, AND INCIARUBBER,
Are desirous of entering in business with English Manufacturers, Merchants, and Bankers. References in London, New York, and Paris, post free on application.

Address—**G. de CAYCEDO & CO.,**
BOGOTA, U.S. OF COLOMBIA, S.A.

B. G. LENNON & CO.,
PHARMACEUTICAL CHEMISTS,
Drug Merchants, &c.,
PORT ELIZABETH, SOUTH AFRICA.

AGENCIES UNDERTAKEN.

LONDON OFFICES AND WAREHOUSE:
11 EDMUND PLACE, ALDERSGATE STREET, E.C.

KEMPTHORNE, PROSSER & CO., NEW ZEALAND DRUG COMPANY, LIMITED, Wholesale Druggists, MANUFACTURING CHEMISTS, AND COMMISSION MERCHANTS, Head Office and Factory, DUNEDIN.

BRANCH HOUSES:

High Street, CHRISTCHURCH,
Lambton Quay, WELLINGTON,
Shortland Street, AUCKLAND,

TRADE MRK.

NEW ZEALAND

Patent and Proprietary Medicines Agency.

London Agents—

Messrs. GRIMWADE, RIDLEY & Co., 82 Bishopsgate Street.

HEINRICH HAENSEL,
Pirna a/d. Elbe, Saxony,
 MANUFACTURER OF
ESSENTIAL OILS & ESSENCES.

(TWO PATENTS FOR DISCOVERIES.)

Sole Proprietor of the Patent for the Method of Making the

CONCENTRATED ESSENTIAL OILS

Known as

HEINRICH HAENSEL'S PATENT ESSENTIAL OILS

PATENT OIL OF LEMON	...	All 30 times stronger,
PATENT OIL OF ORANGE PEEL	...	bulk for bulk, than
PATENT OIL OF ANGELICA	...	the ordinary essential
&c.,	&c.,	oils.

The above Oils are completely soluble, and cause no cloudiness when mixed with ordinary spirits of wine.

SOLUBLE ESSENCE of GINGER

(VERY CONCENTRATED).

CONCENTRATED ESSENCES,

Distilled, and easily soluble, for the preparation of every kind of Liqueur.

FRUIT ETHERS.

Essences of Rum, Arrak, Brandy.

INGHAM'S Euphorbia Pilulifra,

THE NEW CURE FOR
Asthma, Bronchitis, Influenza, Cough, Colds,
Difficulty of Breathing, and all Chest
Affections.

93 Macquarie Street South, Sydney, M² 1881.

DEAR SIR.—It is with feelings of great pleasure that I send you my valuable preparation of Euphorbia. I have been troubled with Asthma for years, and have consulted many physicians without much benefit. I was induced to try your Concentrated Essence of Euphorbia, and, after taking three bottles, I am happy to say that I feel as well as ever I did in my life. You have my permission to make use of this testimony if you deem proper.—I am, dear Sir, yours truly, JOHN HORN.

The above Testimonial is one of hundreds already received.

THOMAS INGHAM,
 Pharmaceutical Chemist,
 ROCKHAMPTON, QUEENSLAND.
 Price 2/6 per Bottle; or Stamped, £.

WHOLESALE AGENTS:

BRISBANE—Elliott Bros. & Co.; Berkeley & Taylor; Quinlan, & Co.
 SYDNEY—Elliott Bros.; S. Hoffnung & Co.; Myers & Solon; Jacobs & Co.
 MELBOURNE—Messrs. Hemmons, Laws & Co.
 ADELAIDE—Messrs. Faulding & Co.
 HOBART—Mr. A. G. Miller.

LONDON—Messrs. Burgoyne, Burbidges, Cyriax & arries.

E PROSSER & CO., WHOLESALE DRUGGISTS,

of Patent Medicines, Druggists' Sundries, Dye Goods, Surgical Instruments and
Perfumery, Fancy Soaps, Sponges, Brushware, Cordial-Makers' Machinery,
Plain Soda-Water Bottles, Labels, and Sundries, Photographic Materials,
Beg to intimate that they have purchased of the

TRUSTEES IN THE ESTATE OF HENRY BEIT,
Stock-in-Trade of their Drug & Importing Business,
LATELY CARRIED ON AT
175 PITT STREET, SYDNEY,
WHERE THEY HOPE TO RECEIVE A FAIR SHARE OF PATRONAGE.

TELTON, GRIMWADE & CO.,
Wholesale Druggists and Manufacturing Chemists,
MELBOURNE, VICTORIA.

LONDON AGENTS:—

MR. RIMWADE, RIDLEY & CO., Mildmay Chambers, 82 Bishopsgate Street.
Wholesale Agents for Oil of Eucalyptus.

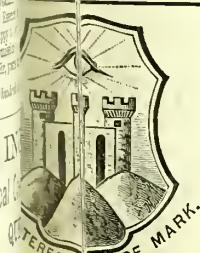
RUECK
to all the
attention of
Trade to his
English drawn
OIL
CLIVES.

OLEUM
OLEUM
FINEST
ENGLISH
DRAWN.

CARYOPH.
CARUI.
GUARANTEED
PURE AND
UNADULTERATED

It is guaranteed
perfectly Pure, and equal
to any other make
both in quality and
aroma,
although considerably
cheaper.

It may be obtained of
all the principal
Wholesale Druggists.
A fair trial is solicited.



BRONZE MEDAL, BRUSSELS, 1876.

SILVER MEDAL, STUTTGART, 1881.

C. H. BURK, STUTTGART—
Archiv Strasse, 21/23. LONDON—
37 Farringdon St., E.C.
APOTHECARY AND MANUFACTURING CHEMIST.

MEDICINAL WINES and LOZENGES.

BURK'S PEPSINE WINE. A savoury, digestive beverage, containing a large percentage of Pepsine, and operating accordingly.

BURK'S CINCHONIC WINES. NON-FERRUGINOUS.

BURK'S CINCHONIC MALTSEY WINE. A sweet wine, relished even by infants.

CHONIC COCOA WINE. A combination of Cocoa and Peruvian Bark, constituting

delicious taste.

BURK'S CINCHONIC WINE. FERRUGINOUS.

BURK'S FERRUGINOUS CINCHONIC WINE. Of an agreeable flavour and easily digestible,

in a dissolved state.

All these wines will keep good for any length of time in any climate, so are especially suited for Export.

by all Chemists and Druggists, in bottles of three sizes, at 2s., 4s. 6d., and 9s.

—Barclay & Sons; Burgoyne, Burbidges & Co.; Butler & Crispe; W. Edwards & Son; F. Newbrey & Sons; J. Sanger & Son.

Guaranteed Percentage of
Cinchonic Extractives,
Cinchonic Alkaloids, & Iron.

There is perfect equality among these wines as regards their essential constituents. They all contain 1·5 per cent. of cinchonic extractives and 0·2 per cent. of alkaloid salts of cinchona. The ferruginous cinchonic wine contains moreover 1 per cent. of ammonia-citrate of iron, equal to 20 per cent. of oxyd of iron, or 0·14 per cent. of metallic iron.



"COCKING'S JAPAN OIL OF PEPPERMINT," AND "MENTHOL CRYSTALS."



Consignees beg to inform Manufacturing Chemists and Confectioners that shipments of above are now being received, and orders sent thru' Wholesalers. Chemists and the Trade will receive immediate attention.

Following is copy of Japanese Government Report relating to these shipments :—

REPORT 64.—"This Japan Peppermint has a specific gravity of 0·905. It does not contain Alcohol, Turpentine, or any other admixture; it does not separate any Crystals of Menthol Camphor when cooled, but becomes at a cold of —10° to —15° centigrade of a jelly-like consistency. IT IS TRUE JAPANESE PEPPERMINT."

"YOKOHAMA, February 24th, 1882.

(Signed) "A. J. C. GETS"

Oil is packed in cases containing 50 x 1 lb. bottles each, at 10/- per lb. Menthol Xtals in cases containing 20 x 5 lb. tins each, 10/6 lb.

NEGRETTI & ZAMBRA, LONDON, Sole Consignees

THE DRUGGISTS' CIRCULAR & CHEMICAL GAZETTE

Is Published Monthly, at

36 BEEKMAN STREET, NEW YORK
SEVEN SHILLINGS and SIXPENCE Sterling, postage prepaid.

The Druggists' Circular usually contains Forty-eight quarto pages of extra large size consisting of literary matter and advertisements. It has reached the 24th year of publication and has a much larger circulation than any similar periodical issued in the United States.

Subscriptions and Advertisements can be arranged for in Great Britain through "THE CHEMIST AND DRUGGIST," 44a Cannon Street, London.

G. JOHNSON & SON,
Importers and Refiners of
BEESWAX, SPERMACEUM,

PARAFFIN WAX, STEARINE, CERESINE, &c., &c.

Finest White Wax in round cakes, WAX BOUGIES, WAX TAPERS, GLAZING WAX, and every other article connected with the Trade, at lowest Wholesale rates.

175—BISHOPSGATE STREET WITHOUT, LONDON—75.

RANDALL'S BLACK CURRANT LOZENGES.

Net Cash. To Acct.

	.	d.	.	d.
Plain Black Currant, old square	..	2	6	2
" " rough oval	..	2	6	2
Black Currant and Ipecacuanha	..	2	6	2
Black Currant and Tannin..	..	3	0	3
Black Currant Voice (warm astringent)	..	3	0	3
Black Currant Cough Lozenges*	..	3	6	3
				10

(*Ipecac. and Morph., strength as "B.P.")

In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From EDWARDS, London; through any Wholesale House; and from the Manufacturers,

RANDALL & SON, Southampton,

Who will forward Samples by post on application.

Also, BROWN COUGH LOZENGES, 2s., 2s. 2d.; 7 lbs. stamped with name free, and MUSK LOZENGES (Special) 2s. 6d., 2s. 8d.

N.B.—Medical Lozenges of every kind,

Including those of the Pharmacopoeia of the Hospital or Diseases of the Throat, London.

**E. H. FAULDING & CO.,
WHOLESALE DRUGGISTS**

Clarence Place, King William Street,
ADELAIDE;
And PORT ADELAIDE

ESTABLISHED 1851.

INDEX TO ADVERTISEMENTS

See Pages 21 and 22.

CORBYN, STACEY & CO.

MELBOURNE.



1880.

ADELAIDE.



1881.



TRADE MARK.

PHARMACEUTICAL LIQUORS.

In response to repeated inquiries for Preparations more concentrated than the
Preparation of the Pharmacopœia, but easily convertible into them, CORBYN, STACEY & Co.
have extended their list of Pharmaceutical and Chemical Liquors. It now embraces the
following:—

LIQ. CROCI. 1-4.

This is the colouring and flavouring matter of Saffron in a concentrated form.

LIQ. FERRI. BROMID. 1-7.

LIQ. FERRI. IODID. 1-7.

The solutions are of full strength, and are not liable to alteration by exposure to air and light.

LIQ. FERRI. PHOSPH. 1-4.

Free from smell, agreeably acid and contains the prescribed quantity of iron phosphate in an
idised condition.

LIQ. PAPAV. ALB. 1-4.

As an important feature of this Liquor, attention is directed to its *stability*, for on prolonged keeping
it remains unchanged, although subjected to conditions which readily induce fermentation in
B.P. Syrup.

LIQ. RHEI. 1-4.

In order that this Liquor might be depended upon for being uniform in its action and reliable in its
use, great care has been exercised in two directions, viz., the use of sound rhubarb only, and its
entertainment.

LIQ. SENNAE. 1-4.

Prepared from Alexandrian leaves by a process which reduces to a minimum the irritant and
irritating effects of senna without impairing its medicinal efficacy.

LIQ. TOLUTANUS. 1-4.

This liquor when added to water or saccharine solutions forms a clear liquid, and when mixed with
proportions indicated produces a preparation more fragrant than the corresponding one of the
Pharmacopœia. No spirit is present in the Liquor, and it retains the full and fine aroma of the balsam.
The latter circumstance suggests for it a preference as a flavouring agent over the P.B. syrup, in the
manufacture of which the more volatile and highly aromatic principles of the Tolu are dissipated.

*To be taken in the proportion of one part by measure of the above Liquors added to the quantity of Syrup indicated will from the
corresponding preparation of the Pharmacopœia.*

SOLEAGENTS & EXPORT CHEMISTS & DRUGGISTS, PHARMACEUTICAL & ANALYTICAL CHEMISTS.

Price List, with Order Form and "Notes on Drugs, &c.," forwarded on application.

300

HIGH HOLBORN, LONDON.

JAMES WOOLLEY, SONS & CO.,

DRUG MILLERS

AND

Manufacturing Pharmaceutical Chemists,

IMPORTERS OF THE

"EXTRA PALE" COD LIVER OIL,

MAKERS OF

SPIRITUS AETHERIS NITROSI, B.P.,

Guaranteed of the official strength.

SPIRITUS AMMONIAE AROMATICUS,

Distilled from Volcanic Ammonia.

TASTELESS COATED PILLS.

Warehouse and Offices:—

2 & 4 SWAN COURT, MARKET ST.;

Laboratory and Drug Mills:—

KNOWSLEY STREET, CHEETHAM,

MANCHESTER.

LIQUOR BISMUTHI SCHACHT

Dose, 5j., diluted.

Great pains are taken to ensure the absolute purity of this preparation. It is not only freed from the ordinary contaminations of the metal, such as copper, arsenic, silver, &c., but that which so frequently causes an offensive odour to pervade the persons of those taking the ordinary preparations of Bismuth, namely Tellurium, is also most carefully eliminated.

SYRUPUS CINCHONÆ ALCOHOLICUS, SCHACHT.

Bark minus the woody fibre. Dose, 10 to 30 drops, diluted.

LIQUOR RHAMNI FRANGULÆ, GILES.

A real aperient, mild and constant. Dose, 5ij. to 5iv., diluted.

SYRUPUS SENNAE AROMATICUS, GILES.

Made by cold maceration—does not gripe. Dose, 5j. to 5ij.

EXTRACTUM CINCHONÆ LIQUIDUM, GILES.

Exhausted entirely with cold water, and prepared by a process specially devised to avoid the changes inseparable from prolonged evaporation.

Dose, 10 to 20 drops, diluted.

The above Preparations are manufactured by Mr. Schacht himself in the laboratory of the firm.

GILES, SCHACHT & CO.,
52 Royal York Crescent, Clifton;

And can be procured from all Wholesale Druggists in London and the Provinces.

UMNEY'S FLUID

Extract of Cinchona

Made from carefully selected Bark of Cinchona S. grown in the Government Plantations of British made by a process ensuring complete exhaustion of ne,

At the recent Medical International Congress the Indian Bark was declared to be the bark of the future.

Unnery's Fluid Extract of Cinchona Bark is as ch to the British Pharmacopœia Liquid Extract as the Indian South American.

See opinions of the Medical and Pharmaceutical Press on Fluid Extract Bark. Also refer to the various journal opinion of practical men upon the subject.

Also please to note that Unnery's Fluid Bark used both in private and hospital practice, on account of its

ELEGANCE—UNIFORMITY MEDICINAL VALUE—MODERATE COST

(One fluid ounce contains all the active principle of one ounce of Bark.)

Price 10s. 6d. per lb.

To be obtained of all Wholesale Druggists, Patent Medicine and Sundriesmen in the United Kingdom. In ordering specify Fluid Extract of Bark."

MANUFACTURERS:

WRIGHT, LAYMAN & UNNERY

Wholesale Druggists, Manufacturing Chemists, stiller
and Importers of Essential Oils, Drug Grind , &c.

Southwark St., London S.E.

SYMES & CO.



Pharmaceutical Chemis

LIVERPOOL,

EXPORT DRUG MERCHANT

IMPORTERS OF

BRAZILIANT DRUGS

Araroba, Caroba, Tayuya, Coca, Bay rum,
Jaborandi, Quebracho, Guaco, Tonquin bane,

AMERICAN & CONTINENTAL SPECIALITIES

French Folded Filtering Papers, &c.

MANUFACTURERS OF

OL. LAVAND. RET.

Now largely replacing the Mitcham Oil 21/-

LAC BISMUTHI

LAC BISMUTHI ET CERI.

HYDROBROMIC SYRUP OF HYPOPHOSPHITES,

London Depôt—7 SNOW HILL.

& P. W. SQUIRE, 413 (OLD
NUMBER,
277) OXFORD ST., LONDON,
CORNER OF DUKE STREET, GROSVENOR SQUARE, W.

CHEMICAL FOOD (SQUIRE).

SYR. FERRI PHOSPH. COMP. (SQUIRE).

(As prepared by PARRISH, of Philadelphia.)

Sagents: P. & P. W. SQUIRE, 413 Oxford Street (corner of Duke Street, Grosvenor Square).

INFUSION OF FRESH BAEL FRUIT.

VALUABLE REMEDY IN CHRONIC DIARRHEA AND DYSENTERY.

Dose: A Teaspoonful.

J. FAYRER states that the fresh is much more active than the dried Bael.—Vide *Medical Times and Gazette*, December 23rd, 1877.

Saire's preparation is all that can be wished, as it is bright and agreeable in appearance and pleasant in taste."—*The Lancet*, July 24th, 1880.

DIALYSED IRON.

LIQUOR FERRI DIALYSATUS (SQUIRE).

(Put up in 1s. 6d. and 2s. 6d. Boxes, with Pipette.)

EUONYMIN

(in Clour). Prepared from the YOUNG Bark.

Dose: 2 Grains.

IRIDIN.

Dose: 4 grains.

TINCTURE OF EUONYMIN.

Dose: 30 Minims.

GLYCEROLE OF THE HYPOPHOSPHITES.

GLYCEROL. HYPOPHOSPH. (SQUIRE).

Dose: A Teaspoonful.

PEPSINE (SQUIRE).

Concentrated Pepsine prepared in Paris expressly for P. & P. W. SQUIRE. It is almost without taste and smell, and keeps well.

Dose: 2 to 5 grains.

& P. W. SQUIRE, 413 (OLD
NUMBER,
277) OXFORD ST., LONDON,

CORNER OF DUKE STREET, GROSVENOR SQUARE, W.

T. & H. SMITH & CO,

CHEMICAL MANUFACTURERS,

OFFER

MORPHIÆ HYDROCHLOR.

In powder and crystals.

MORPHIÆ ACETAS.

MORPHIÆ TARTRAS.

Introduced by them and specially prepared
for hypodermic treatment.

CODEIA.

APOMORPHIÆ MUR.

PODOPHYLLIN.

JALAPINE.

SALICINE.

CHLOROFORM PURE.

CHLOROFORM METH.

Their brand has been for many years known to
the Wholesale Trade as absolutely pure.

POTASSII BROMID.

RESINA SCAMMONII, B.

GINGERINE.

CAPSICINE.

CAMPHOR MONOBROM.

ALKALOIDS, &c., &c.

EDINBURGH Address—

21 DUKE STREET.

LONDON Address—

12 WORSHIP STREET, E.C.

HEWLETT'S MIST. PEPSINÆ CO. C. BISMUTHO

Highly recommended in various forms of dyspepsia, having a direct action upon the mucous membrane of the stomach and intestines as a sedative. It can be administered with marked and almost instantaneous effect in the irritative form of dyspepsia more especially when *pyrosis* is a conspicuous symptom, and pain occurs an hour or more after food. In simple neuralgic pains following eating, occurring in feeble subjects, it is especially indicated, and even in *carcinoma* it has been used with great success in alleviating pain and vomiting.

In the dyspepsia of patients dependent upon some organic disease, and where there is a decided loss of nerve power, singular service. Thus, for instance, a person after a meal complains of a peculiar gnawing and emptiness, which at the epigastrium, evident signs of general relaxation and loss of nerve power, clinical experience has shown that it is of great service as a tonic and stomachic. A portion of its value arises, it may be, from its action upon the spinal motor nerves, and of these things as they may, experience has abundantly demonstrated the value of the compound as a stomachic and tonic, in general functional atony and relaxation, and in the various forms of dyspepsia, constipation, or diarrhea, consequent on atony of the visceral muscular coat, the Mist. Pepsinæ Co. c. Bismutho is a very valuable remedy. In the extreme *exacerbation* of *Phthisis*, accompanied with night sweats and restlessness, Dr. MATHEWS, of Nantwich, has used it with marked appreciable effect.

Price (in England) 10s. 6d. per pound.

Physicians will oblige, when ordering Mist. Pepsinæ Co. c. Bismutho, by writing Mist. Pepsinæ Co. (Hewlett).

Packed in 10-oz., 22-oz., 40-oz., and 90-oz. Bottles.

LONDON MEDICAL RECORD REPORT.

MISTURA PEPSINÆ COMPOSITA CUM BISMUTHO.

"This combination of Messrs. HEWLETT is one which has been extensively tested, and with good results. It is justly popular in profession as a very valuable and effective combination. It serves not only to improve aperients, but to lessen the general pain and facilitate difficult and painful digestion, without setting up any evils of its own. It is a very good crutch for persons of all ages to lean on."—January 15th, 1881.

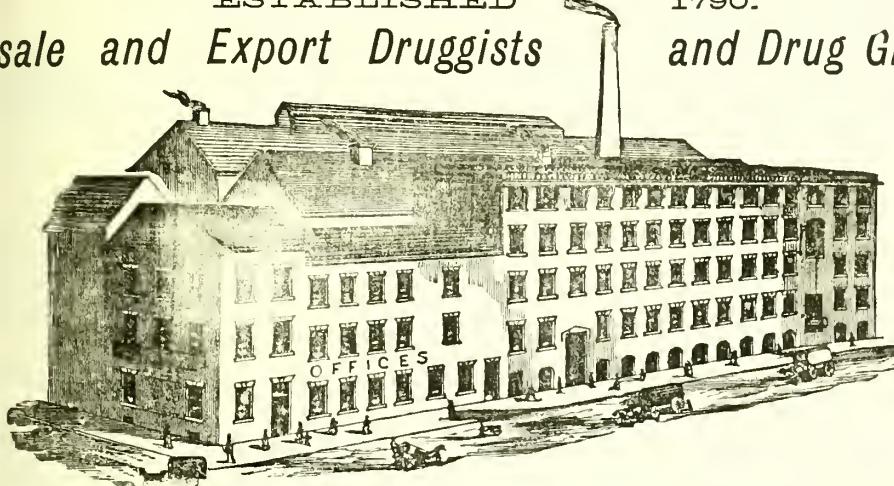
C. J. HEWLETT & SON,

MANUFACTURING AND PHARMACEUTICAL CHEMISTS,

40, 41, & 42 CHARLOTTE STREET, GREAT EASTERN STREET, LONDON, E.C.
(LATE CREE CHURCH LANE).

ESTABLISHED 1832.

WYLEYS & CO., COVENTRY,
WYEYS, WALKER & CO., 223 Upper Thames Street, LONDON, E.C.,
ESTABLISHED 1790.
Wholesale and Export Druggists and Drug Grinders.



LABORATORIES AND DRUG MILLS AT COVENTRY.

MANUFACTURERS OF CHEMICALS AND PHARMACEUTICAL PREPARATIONS

BEG TO CALL ATTENTION TO UNDERMENTIONED SPECIALTIES:—
CHEKAN AND ITS PREPARATIONS.

Prescribed by many eminent Medical Men.

J. Strel Dowsse, 14 Welbeck Street, Cavendish Square, writes:—"I found the Liquid Ext. Chekan very useful in Chronic Inflammation of the Bronchial in connection with Iodide of Potassium, and the inhalation of the Oil in a few cases of Bronchitic Asthma where I tried it was certainly ficial. This drug is worthy of a more extensive trial than it has hitherto received.

The Practitioner of May, 1880, Dr. Wm. Murrell, of the Royal Hospital for Diseases of the Chest, and of Westminster Hospital, cites 15 cases in which

KAN have been used in cases of Chronic Bronchitis, with marked beneficial results. He says "they were all bad cases, most of them of many years

duration. Many of them had been attending at the Hospital for some considerable time, and almost without exception they had in former years

wronged with medical treatment with comparatively little benefit."

Chekan Liquid, containing in each fluid ounce the medicinal properties of one ounce of the drug. Dose: from 1 to 3 fluid drachms three or four times a day.

Chekan Essent. To be used for Inhalation in cases of Diphtheria, Laryngitis, &c., in the ordinary way.

Chekan is half the strength of the Liquid Extract, and is specially recommended for children. Dose, according to age, from 30 to 60 minims.

TRACT OF MALT AND ALL ITS COMBINATIONS.

Pure Extract of Malt, free from Glucose or added sugar, containing, in an unchanged condition, all the natural digestive principles of Malted

In. In Bales, 12s. and 22s. per dozen.

CHINOQUININE.

A demand for this Preparation has sprung up so rapidly that we have now made arrangements for its manufacture upon a larger scale than before. From reports received from both hospital and private practitioners we find it to be recognised as a really valuable and efficient substitute for Quinine, indeed in many cases where the officinal alkaloid proved objectionable (on account of unpleasant after-effects), Chinoquinine has been instated in beneficial results. The dose is the same as Quinine.

FERRI ET CHINOQUINAE CITRAS.

A "sec" Preparation, corresponding in appearance, dose, and medicinal properties to Ferri et Quinia Citras, P.B., but containing the advantages of Chinoquinine, of which it contains 25 per cent. in the form of Citrate.

LIQUOR FERRI ET CHINOQUINAE CITRAS.

Is a very pleasant and palatable Preparation of the above in a liquid form, prepared for convenience in Dispensing. Each fluid drachm contains

grains of Iron and Chinoquinine.

SPECIAL PREPARATIONS OF COD LIVER OIL,

Manufactured from the finest Norwegian Oil specially imported by us.

OLEUM MORRHUÆ ET CALC. HYPOPHOS.

We were the earliest makers of this Preparation, which is a flavoured emulsion in which the taste of the oil is entirely disguised. Each tablespoonful takes two spoonfuls of Cod Liver Oil and two grains of Hypophosphite of Lime. It is flavoured either with Almond, Cinnamon, or Wintergreen.

E M U L S I O M O R R H U Æ P H O S P H .

A flavoured emulsion as above, and containing in each tablespoonful 1-60th of a grain of Phosphorus, and $\frac{1}{2}$ of its volume of Cod Liver Oil. The

es of the Phosphorus and Oil are both entirely disguised.

OLEUM MORRHUÆ PHOSPH.

Each tablespoonful contains 1-32nd of a grain of unoxidised Phosphorus.

OLEUM MORRHUÆ PHOSPH. c. QUINIA ET STRYCHNIA.

Each fluid drachm contains $\frac{1}{2}$ grain Quinine, 1-64th of a grain of Strychnia, 1-100th of a grain of Phosphorus.

EXT. FILICIS LIQ. (WYLEYS').

A much more active preparation than the officinal extract. It is carefully prepared from Native Rhizomes, and consists solely of the Oil abstracted

which is evaporated at a very low temperature. Dose: 30 to 60 minims. See BRITISH MEDICAL JOURNAL, April 3rd, 1875.

COATED PILLS.

We are making on a large scale, and shall be pleased to forward List containing Recipes for every description of these.

Mrs. W. & CO. will be happy to forward their Prices Current, Book of Order Forms, and Pill List on receipt of business card.

SPANISH PRICE LISTS PUBLISHED QUARTERLY.

PORT OWNERS RECEIVE CAREFUL ATTENTION. SPECIAL QUOTATIONS FOR GOODS REQUIRED IN QUANTITY.

TWO SPECIAL FIRST AWARDS, SYDNEY EXHIBITION, 1879-1880.
 FIRST AWARDS, WITH GOLD MEDAL FOR ESPECIAL EXCELLENCE
 MELBOURNE EXHIBITION, 1880-1881.

THOMAS WHIFFEN, BATTERSEA, LONDON,

MANUFACTURER OF

QUININE SULPHATE.

White and Unbleached, and all other important Salts of Quinine; as also of QUINIDINE, CINCHONIDINE, AND CINCHONNE.

QUINETUM. The Alkaloids of India Cinchona Succirubra Bark.

QUINETUM SULPHATES.

LIQUID EXTRACT OF CINCHONA BARK.

SALICINE. The active principle of Willow Bark.

STRYCHNINE (HULLE'S).

The Advertiser is the PROPRIETOR and INVENTOR of this well-known Brand.



BURGESS, WILLOWS & FRANCIS
 WHOLESALE & EXPORT DRUGGISTS,
 AND
 MANUFACTURING PHARMACEUTICAL CHEMISTS,
 101 HIGH HOLBORN, LONDON.

Price Lists sent on application. Special quotations given for
 Shipping Orders.

DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS.

BARRON, SQUIRE & CO.

(LATE DREW, BARRON, & CO.),

WHOLESALE & EXPORT DRUGGISTS
 BUSH LANE, LONDON, E.C.,

MANUFACTURERS OF ALL DESCRIPTIONS OF PHARMACEUTICAL PREPARATIONS,
 Beg to inform Merchants, Shippers, &c., that all Indents entrusted to them will receive
 careful attention and prompt execution.

Messrs. B., S. & Co. request the attention of their friends and the Trade, at home and abroad, to their having PURCHASED THE BUSINESS of Messrs. JAMES BASS & SONS, Hatton Garden, and will supply them various Formulae from which their Special Preparations have been made, and pledge themselves to supply them in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

VANS, SONS & CO.,

56 HANOVER STREET, LIVERPOOL;

SUGDEN EVANS & CO., TRADE



PARIS AGENCY

Montreal, Canada.

20 Rue J. J. Rousseau.

IVANS, LESCHER & WEBB,

60 BARTHOLOMEW CLOSE, LONDON;

WHOLESALE AND EXPORT DRUGGISTS

AND

Manufacturing Pharmaceutical Chemists.

ers in Patent Medicines, Druggists' Sundries, and every requirement for Chemists and Druggists.

CURRENT OF DRUGS AND CHEMICALS, AND DRUGGISTS' SUNDRIES (ILLUSTRATED), SUPPLIED ON APPLICATION, ENCLOSED BUSINESS CARD.

ILLUSTRATED EXPORT LISTS

t 150 ges each), containing Prices of Drugs, Chemicals, Pharmaceutical Preparations, Druggists' Sundries
t Part Medicines, &c., are sent post free to any part of the World on application (ENGLISH, in January
1 July SPANISH, in April and October).

THE ABOVE LISTS OFFER UNUSUAL ADVANTAGES AS A MEDIUM FOR ADVERTISEMENTS.

of Proprietary Medicines, Perfumers, &c., by advertising in same, will have their specialities brought prominently under notice of dealers in all parts of the world. Terms for advertising (which are strictly moderate) may be obtained by applying to Messrs. VANS, SONS & Co., 56 Hanover Street, Liverpool. All Advertisements translated into Spanish free of charge.

H SUGDEN EVANS & CO.,
WHOLESALE DRUGGISTS,
MANUFACTURING PHARMACEUTICAL CHEMISTS,
General Commission Merchants,
MONTREAL, CANADA, and ROUSE'S POINT, N.Y., U.S.A.

H. SUGDEN EVANS & Co. are prepared to accept Agencies for European Proprietary Articles, Perfumery, for the Dominion of Canada and United States of America. All communications, in the first instance, to be addressed to EVANS, SONS & Co., 56 Hanover Street, Liverpool.

PEROXIDE OF HYDROGEN.

10 VOL., and upwards.

Ferri et Quinæ Citras, B.P., Ferri et Ammonia Citras, Concentrated Fruit Essences, Photographic and Fine Chemicals.

BUTT, CHILD & CO., UNION CHEMICAL WORKS,
Debnam's Road, Rotherhithe New Road, London, E.C.

DUNCAN, FLOCKHART & CO.
WHOLESALE AND EXPORT DRUGGISTS, EDINBURGH.

CHLOROFORM

Prepared from Pure and Methylated Spirit.

Put up in all sizes of bottles. A strap with Name and Trade Mark of the Firm is placed over the stopper of each bottle. For Export, bottles and luted (stoppers attached), and in hermetically sealed flasks when required.

N.B.—We guarantee our Chloroform prepared from METHYLATED SPIRIT to be PURE CHLOROFORM, answering the tests of the British Pharmacopœia.

CHLORIC ETHER.

SP. AMMON. AROMAT. | SP. ÆTHER. NITROS. | SYR. FERRI PHOS. CO. (PARIS)
Fluid Extracts, Concentrated Infusions, and all Pharmacopœial Preparations.

MANUFACTURERS OF THE CELEBRATED

BLUE BLACK WRITING INK & COPYING INK.
SHIPPIERS SUPPLIED ON LIBERAL TERMS.

White Gutta Percha for Stopping Teeth, in 6d. and 1s. Boxes.

J. F. MACFARLAN & CO.

EDINBURGH AND LONDON,

Manufacturers of

MORPHIA AND ITS SALTS

And all Products from Opium; also

PURE CHLOROFORM

Answering all the Tests of the British Pharmacopœia.

Is extensively used in the Hospitals and by Private Practitioners, and is rapidly superseding the expensive Alcohol.

MAY BE HAD FROM ALL THE WHOLESALE HOUSES, AND AT

17 North Bridge, Edinburgh, and 5 Barge Yard, Bucklersbury, London.

C. ERDMANN, Leipzig-Lindenau, GERMANY.

Manufacturer of Chemicals for Technical, Pharmaceutical, and Scientific Purpose.

PURE CHLOROFORM.

Answering all the tests of the British Pharmacopœia.

ETHER SULPHURIC ACID.

For Anæsthetics, Photography, and Ice Making.

ALCOHOL ABSOLUT.

SP. AMMON. AROMAT. | SP. ÆTHER. CHLORAT. | SP. ÆTHER. ITRIC ACID.
AND ALL OTHER PREPARATIONS OF ALCOHOL.

WHITE GUTTA PERCHA FOR STOPPING TEETH.

COLLODIUM.

London Agents—C. GROSS & CO., 9 Mincing Lane, E.C.

Chemische Fabrik auf Actien, vormals E. Schering, Berlin,
 MANUFACTURERS OF
SCHERINGS' PURE CHEMICALS

PARTICULARLY OF

D, ARBOLIC or en Absolut.	Fine white hard crystals	Free from Cresylic Acid. Watery solution will not show greasy spots floating on top.
D, ALLIC	Almost white needles	Freely and entirely soluble in alcohol or water.
YROGALLIC	Bi-sublimed, white, bulky	Ditto ditto ditto.
ALICYLIC (Kolbe's)	White, powder, crystallised, and dialysed	Dissolves colourless in water or alcohol; purest for medicine.
ANNIC	Lightest crystals	Dissolves almost colourless in water, alcohol, and ether.
"	Powder and granulated	Dissolves freely in water, alcohol, and ether.
LODINE (Patent)	Gelatine plates	Purest Pyroxylin; explosive.
ORL HYDRATE	White cake and crystal	See Liebreich's, below.
ORL HYDRATE (Lieb- ch')	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age.
ORFORM (ex Liebreich's or)	Schering's original label	Free from foreign chlorides. Will leave no odour on evaporation.
TO. CHLORAL	Shiny crystalline scales. (Powder form most objectionable)	Free from foreign chlorides.
CEINE	S.G. 1260, double distilled, brilliantly white, odourless; also lower S.G. and qualities	Free from lime, chlorides, metals; will stand severest chemical tests.
NE	Resublimed, fine scales	Purest.
DFORM	Dry yellow scales	Purest, by medical reports.
AS. BROMIDE	Fine white dry regular crystals ...	Perfectly free from iodide, and the most free from chloride.
CAUSTIC	Lump and stick, white	Commercially pure, and pure by alcohol.
CYANIDE	Ditto ditto	30%, 45%, 60%, and 95%.
PERMANGANATE	Large and small crystals	Chemically pure.
IODIDE	Fine white dry regular crystals ...	Apply Barytic and other tests. This will never change colour.
NITRATE	Fine large crystals	63 to 63½% pure silver.
AUSTIC	Lump and stick, white	Chemically pure, and pure by alcohol.
SALICYLATE, and her alicylates	White powder and crystals	Freely soluble in water and alcohol.

H. FINZELBERG, of Andernach-on-Rhine,

MANUFACTURER OF

OT, pure Dialysed ...	Brown colloid, purified by Dialysis	Free from all saline matter present in the ordinary Ergotine and extracts.
RU OXYD. (5% Dialysed)	Transparent brown liquid, purified by Dialysis	Free from all saline matter. Diluted by ten times its weight of water, will stand the test of Nitrate of Silver.
PSIMPORCI (100%)	White, sweet, odourless powder ...	Freely soluble in water, not hygroscopic, and will not deteriorate; will dissolve (by Wittstein's test) 100 parts of white of egg and 250 parts of fibrine.

SCHERINGS'
PURE CHINOLINE AND ITS SALTS,
 OR
ARTIFICIAL QUININE SUBSTITUTE.

SOLE WHOLESALE AGENTS—

& M. ZIMMERMANN, 21 MINCING LANE, LONDON, E.C.

For Quotations, &c., apply to Wholesale and Export Drug and Chemical Houses.

REGISTERED
GERMAN
TRADE MARK.



M. HOFF, HAMBURG, TO THE TRADE.



The unpleasant affair with **M. Hoff's** former opponent and **M. Hoff's** former agent has TERMINATED.

After the postponement of the legal proceedings they were entirely WITHDRAWN by **M. Hoff's** former opponent, who, by agreement, has bound himself to account to **M. Hoff** for his shipments to **M. Hoff's** former agent, to PAY the PROFITS to **M. Hoff**, and to close his new RIVAL establishment at Hamburg.

M. Hoff expresses his thanks for past favours, and requests the trade to continue NOT to keep in stock any but the genuine goods shipped always by him.

Orders to 3 CHARTERHOUSE BUILDINGS, LONDON, E.C., **M. Hoff's** London House. NO OTHER ADDRESS.

READ!

1ST LETTER.

To Mr. LEOPOLD HOFF.

2ND LETTER.

"Send me 2 dozen **M. Hoff's** Malt Extract, ANY OTHER BUT **M. Hoff's** WILL BE RETURNED, as it is for a case of sickness," writes Major McClintock, Leskinore, Omagh.

The words printed in large type in that letter are written in red ink in the original, and the remainder in black ink.

"Enclosed cheque for 'M.' Hoff's Malt Extract. Mrs. McC. has found it of the greatest benefit. Dr. Flemming means to write to you telling of great advantage and good he finds in it. We have got a similar preparation, but Mrs. McClintoc could not take it."

OIL LAVENDER "MONT BLANC"

Messrs. CLAUDE REYNAUD & CO. (Grasse), having imported the Lavender oil from Mitcham, and giving the cultivation of it their special attention, have succeeded in producing an Oil of Lavender which is considered equal to that of Mitcham, and are now prepared to offer it in 1 kilo. tins and upwards at 12s. per lb. Our other Specialities are

POMADE EXTRACT OIL,—ROSE AND ORANGE FLOWER WATER, &c.

Sole Agent, G. V. DE LUCA, 21 Jewin Crescent, E.C. Depot, NEWBERY & SON, 1 King Edward Street, E.C.

AWARD OF MERIT, LONDON MEDICAL AND SANITARY EXHIBITION, 1881.

IMPORTANT NOTICE!

LOEFLUND'S DIASTASE MALT EXTRACT

Contains all the Diastase formed in the germ of the Barley in active form, and has the power of converting fully 100 per cent. of Starch to Sugar. An admixture of 10 to 15 grammes of this Extract will render any farinaceous Infants' Food a great deal more digestible and effective, with comparatively small expense. 2s. 6d. per 10-oz. Bottle.

LOEFLUND'S DIASTASE MALT EXTRACT WITH PEPSINE,

For digesting Farinaceous and Animal Food, is the very best Dietetic for Dyspepsia. This new Preparation, acting on the food itself, not on the organism, offers a remarkable advantage over any alcoholic digestive beverage. 2s. 9d. per 10-oz. Bottle.

LOEFLUND'S PLAIN MALT EXTRACT (Pharm. Germ.), for Coughs, Colds, Asthma, &c. 2s. 6d.

LOEFLUND'S IRON-MALT EXTRACT, for Chlorosis and Anaemia. 2s. 9d.

LOEFLUND'S LIME-MALT EXTRACT, for Diseases of the Lungs. 2s. 9d.

LOEFLUND'S COD-LIVER-OIL-MALT EXTRACT (containing also Diastase), of very palatable taste and easy digestion. 2s. 6d.

LOEFLUND'S MALT EXTRACTS are particularly adapted for Export. Most favourable terms to Wholesale Houses and Shippers upon application.

MANUFACTURER:

ED. LOEFLUND, CHEMIST, STUTTGART, GERMANY

WHOLESALE DEPOTS:—BARCLAY & SONS; BURGOYNE, BURBIDGES & CO.; W. EDWARDS & SON; GRIMWADE, RIDLEY & CO.; LYNN & CO.; S. MAW, SON & THOMPSON; R. H. MILLARD, SON & APPLETON; F. NEWBERY & SONS; JOHN SANGER & SONS; W. SCOTT & CO.; ALBERT C. DUNG, NEW YORK. KRAUSS, SCHULTES & CO., SANTIAGO DE CHILE. ELLIOT BROTHERS, SYDNEY. KEITH & CO.; PROSSER & CO., AUCKLAND.

VANS'S EXTRACT OF MALT.

Recommended in Asthma, Bronchitis, Consumption, Pneumonia, Indigestion, and in Stomach Coughs.
Port of Professor Attfield, Ph.D., F.C.S., Professor of Chemistry to the Phar. Soc. of Great Britain.)
"EVANS'S EXTRACT is incomparably more valuable than any preparation of Malt hitherto offered to the public."

IVANS'S STYPTIC.

Introduction of this Preparation to the notice of the Profession for its value arose from the desire expressed by several eminent physicians to obtain an efficient Styptic at a moderate price.

P. C. S. L. M.D., &c. Surgeon to the Meath Hospital, writes:—"I find it of the best in fact, in every instance was equal, if not superior, to Ruspin's Styptic."

T. P. FOX, M.D., &c. Physician to Mercer's Hospital, writes:—"The Styptic has good reason to forward to me, I found highly advantageous in the treatment of Phthisis."

Details of these Preparations may be had on application.

OH EVANS, CHEMIST TO THE QUEEN and H.R.H. THE PRINCE OF WALES,
49 Dawson Street, Dublin, Ireland.
U.S.A.—WYETH & BROTHER, PHILADELPHIA.

* * * * *

**GRAESSER'S
EXTRA
Pure CARBOLIC ACID Cryst.**

ABSOLUTE PHENOL, AT MODERATE PRICE.
Clean, Pure Taste, Free from Tarty Flavour.

**A. M. ZIMMERMANN,
LONDON,
WHOLESALE
AGENTS.**

* * * * *

JOHANN HOFF'S MALT EXTRACT.

THE ORIGINAL AND ONLY GENUINE.

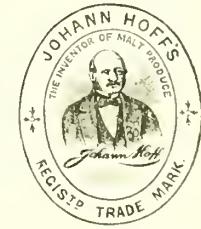
JOHANN HOFF'S MALT EXTRACT. This valuable preparation has, by its own intrinsic merit, earned for itself a reputation as a most valuable dietetic beverage. It invigorates and restores the aged, the weak, and the ailing.

JOHANN HOFF'S MALT EXTRACT has been supplied to their Royal Highnesses the Prince and Princess of Wales since 1873, on the recommendation of the King of Denmark. Patronised by the Nobility, Physicians, and Clergy of England. Testimonials of the highest character.

JOHANN HOFF, of Berlin, possesses 58 titles, distinctions, and awards for his MALT EXTRACT. He has the Orders of the Golden Cross of Austria, First Class of the Crown of Prussia, and is Purveyor to nearly all the Courts of Europe.

JOHANN HOFF'S MALT EXTRACT.—CAUTION.—A Spurious Preparation called "HOFF'S MALT EXTRACT" has been recently introduced and foisted upon the public. The ORIGINAL bears JOHANN HOFF'S REGISTERED TRADE MARK (as above), an Oval Bust with his Signature. Be sure you get the genuine.

JOHANN HOFF'S MALT EXTRACT obtained an award at the International Medical Exhibition, London. Descriptive pamphlet may be had, post free, of the Sole Consignee, O. NEWMAN, 9 Railway Approach, S.E. Price of Extract, 2/- per doz., carriage paid in England.

**WILLIAM GRAHAM CARR & SONS,**

PHARMACEUTICAL CHEMISTS,
IMPORTERS AND WHOLESALE DEALERS IN COD LIVER OIL,
BERWICK-ON-TWEED.
ESTABLISHED 1794.

**FISHERIES EXHIBITION, EDINBURGH.**

Out of seventeen exhibitors, including many of the best makers and dealers from Norway, Sweden, Edinburgh, Glasgow, Birmingham, Shetland, Aberdeen, &c., we have been awarded the Highest Prize and Gold Medal.

**LARS BREKKE & CO.,**

5 MINERVA TERRACE, HULL

(BRANCH OFFICE OF LARS BREKKE, AALESUND, NORWAY),

Recommend SUPERIOR NON-FREEZING

COD LIVER OIL,

In 2nd and 12 gallon Tin Casks, at the very lowest prices, free on rail Hull, or c.i.f. any principal Port of United Kingdom.

WHOLESALE ONLY.

SAMPLES AND QUOTATIONS ON APPLICATION.

NEW DRUGS AND REMEDIES.

JUST RECEIVED.

MENTHOL CRYSTALS.

For Neuralgia, Toothache, Sciatica, Ringworm, Sunstroke, &c., &c. Menthol can be made into sticks or tablets to facilitate its application. Prices on application.

EUPHORBIA PILULIFERA (Herb).

For Asthma, Bronchitis, Influenza, Coughs, and all Diseases of the Chest. Price 5/- per lb.

For Particulars, read "NEW COMMERCIAL PLANTS AND DRUGS," Nos. 1 to 5, price 1s. each.

NEW DRUGS AND REMEDIES FROM ALL PARTS OF THE WORLD.

APPLY FOR LIST TO

THOS. CHRISTY & CO., 155 Fenchurch Street, LONDON, E.C.

W. LONGSHAW & SONS.

MANUFACTURERS OF

Crystal Carbolic Acid, 35° C. and 29° C., in Bottles and Drums.

Liquid Carbolic Acid, 3 % of Water, in 8 and 16 oz. Bottles, and in Casks.

Liquid Carbolic Acid, 15 % of Water, in 1 to 10 gal. Tins, and in Casks.

Liquid Carbolic Acid, 50 % of Acid, in 1 to 10 gal. Tins, and in Casks.

Carbolic Acid Powder, guaranteed to contain

10, 15, or 20 % of pure Liquid Carbolic.

The 15 % Acid packed in 6d. and 1s.

Decorated Tins.

Perfumed Solution of Carbolic Acid,

12-oz. Bottles.

ABSOLUTE PHENOL, OR PURE CARBOLIC ACID CRYSTALS, 42° C.
Free from Smell and Tarry Taste, in 1 to 16 oz. Bottles and Drums, to suit Buyers.

Colou, &
Spirit and Soluble

Coraline

Spirit and Soluble

Picric Acid Crystals and Iwden

Bismarck Brown. Magenta Crystals

Pure Liquor Ammonia, 880. Pure Nitric Acid, 42° C.

Pure Hydrochloric Acid, 11·60. Nitrate of Lead.

In asking for quotations, state quantity required.

W. L. & SONS are prepared to supply the above articles at lowest possible prices, consistent

with high quality.

SANKEY BRIDGE CHEMICAL WORKS, WARRINGTON.

ESTABLISHED UPWARDS OF A CENTURY.

BUTLER, McCULLOCH & CO.

COVENT GARDEN MARKET, LONDON.

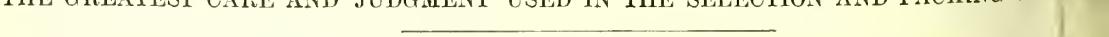
WHOLESALE AND EXPORT

HERBALISTS, DRUGGISTS & SEEDSMEN.

THE GREATEST CARE AND JUDGMENT USED IN THE SELECTION AND PACKING OF HERBS.

SPECIALITIES.—Herbs (Culinary and Medicinal) in Packets;

PRICE LISTS ON APPLICATION.



RECIPITATED CHALK.

HINEST AND PUREST QUALITY.

MANUFACTURED BY LEVERMORE BROTHERS,
CULLUM STREET, LONDON, E.C.

The largest Manufacturers, are prepared to execute orders on
the shortest notice.

APPLICATIONS FROM BUYERS ARE INVITED.

ACID ACETIC FORT, 1·040.

Quality and Guaranteed from Soda.

MANUFACTURED BY DUNN & COMPY.

(LATE OF PRINCES SQUARE, FINSBURY),

MANUFACTURING CHEMISTS,

MURLING CHEMICAL WORKS,
WEST HAM, E.

MORSTER & GREGORY,

MANUFACTURING CHEMISTS,

MINESOME CHEMICAL WORKS, STREATHAM COMMON, S.W.,

of the Hypophosphites; also of Valerianic Acid and all Valerianates, Bisulphide of Chloride of Sulphur, Chlorate of Baryta, and Chemicals for Pyrotechnical and all other purposes.

All Coal Tar Products for the Manufacture of Aniline Dyes.

Sulphur in Rock or Roll, Ground Sulphur, Washed Sulphur, Milk of Sulphur, Precipitated Sulphur. Guaranteed Pure.

ESTABLISHED 1852.] SAMPLES AND QUOTATIONS ON APPLICATION.

[ESTABLISHED 1852.

NEWTON, KEATES & CO.,

King Street, and 3 Cooper's Row, Liverpool,

MAKERS OF THE PUREST FORM OF

PHOSPHATE OF SODA,

PHOSPHORIC ACID, &c.,

Also Chemical Manure Manufacturers.

DR. LALOR'S PHOSPHODYNE

(TRADE MARK—PHOSPHODYNE.)

TWENTY YEARS' PUBLIC TEST, and THOUSANDS OF TESTIMONIALS from all parts of the World establish

PHOSPHODYNE the only Safe, Reliable, and Never-failing Remedy for Over-worked Brain, Sleeplessness, Harassing Dreams, Worry, Anxiety, Excitement, Business Pressure, Wasting Diseases, Nervous Prostration, Stomach and Liver Complaints, Impoverished Blood, Premature Decay, and all morbid conditions of the system dependent upon the Vital Forces.

DR. LALOR'S PHOSPHODYNE Purifies and Enriches the Blood, Clears the Skin, thoroughly invigorates the Brain, Nerves, and Muscles, Re-energises the Failing Functions of Life by supplying the PHOSPHORIC element which has been wasted, and thus imparts Energy and Fresh Vitality to the Exhausted Nervo-Electric Force, rapidly Cures every form of Nervous Debility, Paralysis, Kidney, Nervous Mind, and Heart Diseases, from whatever cause.

Sold in Bottles, at 4s, 6d, and 1s., by all Export, Wholesale, and Retail Medicine Vendors throughout the World. Manufactured at the

PHOSPHODYNE LABORATORY by D. LALOR, Bay House, 32 Gaisford Street, London, N.W. (The sole Proprietor and Originator of Phosphodyne.)

SEVERAL PRIZE MEDALS AWARDED TO
FRANCESCO SAVERIO POLIMENI
MANUFACTURER OF ESSENTIAL OIL,
MESSINA (SICILY).

ANTONIO POLIMENI, 12 Mark Lane, LONDON, E.C.
 SOLE AGENT FOR THE UNITED KINGDOM.

QUOTATIONS AND SAMPLES ON APPLICATION.

BAISS BROTHERS & CO,
WHOLESALE AND EXPORT DRUGGISTS

AND

Manufacturing Chemists and Druggists' Sundriesmen.

ESTABLISHED 1833.] JEWRY STREET, LONDON, E.C. [ESTABLISHED 1833]

QUALITY GUARANTEED BY
 AFFIXING OUR TRADE MARK
 TO EVERY PACKAGE.

TRADE MARK



QUALITY GUARANTEED BY
 AFFIXING OUR TRADE MARK
 TO EVERY PACKAGE.

FOR EXPORT ONLY.

An exhaustive illustrated Export Prices Current, comprising every requirement of the Chemist and Druggist, will be published on the 1st of January, April, July, and October, and can be had by application (post free) on receipt of trade card. The intention of the trade is especially called to their preparations, including Extracts, Concentrated Decoctions, and Infusions, for which our name is well established, and are guaranteed to be prepared with the utmost care from the finest drugs, and which will keep in a climate any reasonable length of time.

Manufacturers of Fruit Essences, which form a ready means when mixed with Acidulated Simple Syrup, of producing an article which has all the flavour of the freshly pressed fruit, and can thus be used with aerated water as a most refreshing drink in all climates.

CORRESPONDENCE IN ALL LANGUAGES.

Ethers, Alcohols, Liniments, and Tinctures shipped in bond at lowest market price.
Patent Medicines and Proprietary Articles at special net prices. *Scientific and Philosophical Instruments. Surgical Instruments.*

Indents sent through Merchants should specially bear the name of BAiSS BROTHERS & CO., and will be put on in best terms.

FELLOWS' HYPOPHOS. CO., FELLOWS,

CONTAINS

- H. ESSENTIAL ELEMENTS to the Animal Organisation—
Potash and Lime;
- H. OXIDISING AGENTS—Iron and Manganese;
- H. TONICS—Quinine and Strychnine;
- N. THE VITALISING CONSTITUENT—Phosphorus;

Combined in the form of Syrup, with slight Alkaline Reaction.

IT DIFFERS IN EFFECT FROM ALL OTHERS, BEING HIGHLY SUSCEPTIBLE TO OXIDATION BY RESPIRATION (an essential characteristic not possessed by any substitute), pleasant to taste, acceptable to the stomach, and harmless under prolonged use.

IT HAS SUSTAINED A HIGH REPUTATION, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. IS EMPLOYED ALSO IN NERVOUS AND DEBILITATING DISEASES WITH SUCCESS.

ITS CURATIVE PROPERTIES are largely attributable to Stimulant, Tonic, and Nutritive properties, whereby the various organic functions are recruited.

ITS ACTION IS PROMPT, stimulating the appetite and the digestion; it promotes assimilation, entering directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression or melancholy; hence its great value in the treatment of mental and nervous affections.

From its exerting a double tonic effect, and influencing a healthy flow of the secretions, its use is indicated in a wide range of diseases.

CAUTION.—The success of FELLOWS' HYPOPHOSPHITES has prompted unprincipled men to substitute, and a case is reported where the use of an imitation imperilled the life of a patient.

NOTE.—The virtue of FELLOWS' HYPOPHOSPHITES depends largely upon the mode of its preparation.

Having an Alkaline reaction, it holds the Hypophosphites of Strychnia in solution. NO known imitator possesses these characteristics combined.

REWARD AGAINST COUNTERFEITS.

Information having been received that certain parties are engaged manufacturing spurious imitations of FELLOWS' HYPOPHOSPHITES, copying BOTTLES, LABELS, AND DIRECTIONS, NOTICE IS HEREBY GIVEN that a liberal Reward is offered to any person or persons who will supply such information as will lead to the conviction of the guilty parties.

THE GENUINE FELLOWS' HYPOPHOSPHITES is dispensed in bottles containing 8 oz. and 15 oz. by weight—address, FELLOWS & CO., ST. JOHN, N.B., blown on—THE NAME, "J. I. FELLOWS, B.C.", IN WATERMARK UPON THE YELLOW WRAPPER, which may be seen when held before hermetically corked, sealed with crimson gelatine, and the seal covered by a metallic capsule; syrup heavy, slightly alkaline, pleasantly bitter taste, and deposits a flocculent brown precipitate of Manganese when left undisturbed for forty-eight hours. NOTE.—Though this alters the appearance, its presence has been found imperative to its full remedial effect. Every bottle is packed in corrugated paper.

JAMES I. FELLOWS, CHEMIST, 7 SNOW HILL.

LE WHOLESALE AGENTS: BURROUGHS, WELLCOME & CO.

PRICE:

ENGLAND, 7s. large, 4s. small. In IRELAND, unstamped, 6s. large, 3s. 6d. small.

M. FELLOWS has no connection, directly or indirectly, with any other Preparation.

TRADE MARK 13556,
CLASS 3.**WATSON'S****COMPOUND CASTOR OIL PILLS.****NOTICE TO THE TRADE.**

The Proprietor of these old-established Pills begs to remind Chemists and Patent Medicine Vendors that they incur no liability in selling them; being a bona-fide Proprietary Medicine, properly stamped, they are exempt from legal interference under the "Food and Drugs Act." Moreover, they contain Castor Oil, they are labelled "Compound," and their compound nature is expressed on the circular round each box. They may, therefore, be confidently recommended when Castor Oil Pills are asked for.

Price 1/1 $\frac{1}{2}$ and 2/9 per Box.

Prepared only by S. WAND, Chemist, Leicester (as heretofore by James Atkinson).

Wholesale Agents.—London: Barelay & Sons, W. Edwards & Son, F. Newbery & Sons, W. Sutton & Co., J. Satt & S. Maw, Son & Co., Hovenden & Sons, J. C. Thompson, Millard & Sons, Butler & Crispé, Burgoyne, Burbidge & Co., Grimshaw & Co., Liverpool: Evans, Sons & Co., Edinburgh: Raimes & Co., Duncan, Flockhart & Co., Sang & Bark, Clark & Pinkerton, Glasgow: Glasgow Apothecaries' Company, Brown Brothers & Co., Hatrick & Co., Leeds: Goodall, Backhouse & Co., York: Clarke, Bleasdale & Co., Raimes & Co., Thirsk: W. Foggett, Manchester: J. Wooley & Sons, Derby: R. Daniel, Dunsford & Carruthers & Allen, Cork: W. E. & H. M. Goulding, Harrington & Son, Queensland (Australia): Elliot Bros. & Co., Brisbar, J. P. Evans & Co., Belfast: J. & J. Haslett, Dublin: Jozé & Burns, C. Mannin, South Africa: B. G. Lennon & Co., Port Elizabeth.

Trade Notice.]**[Trade Notice]****ATKINSON & BARKER'S
ROYAL INFANTS' PRESERVATIVE**

Established by 90 years' experience as a safe and effective Medicine.

Sold universally by Chemists and Patent Medicine Dealers.
WHOLESALE AND EXPORT ORDERS SUPPLIED FROM THE MANUFACTORY.

11 RUSSELL STREET, DOWNING STREET, MANCHESTER.

SHOW CARDS AND BILLS ON APPLICATION.

**SMITH'S TASTELESS
DANDELION ANTIBILIOUS PILLS,**Price, 1s. 1 $\frac{1}{2}$ d. and 2s. 9d. per Box.

TARAX AND PODOPH.

A NON-MERCURIAL LIVER MEDICINE, specially useful to the habitually constipated, and safe for all ages.
Worthy of trade notice. Reliable, and rapidly increasing in public acceptance.

PREPARED ONLY BY

W. F. SMITH, M.P.S.,
280 WALWORTH ROAD, LONDON.

To be had of the usual Houses.

**GREGORY'S
TOOTHACHE
WOOL.**
(REGISTERED.)

A NOVELTY.

Gives instant ease and destroys the nerve without pain.

ON HANDSOME SHOW-CARDS.

ONE DOZEN ON EACH CARD.

RETAILS at 6d. and 1s.

SOLE WHOLESALE AGENTS—

MESSRS. MAW, SON & THOMPSON,
ALDERSGATE STREET, LONDON.

COBDEN'S PILLS
(QUININE & PHOSPHORUS)
2/9 & 4/6
THE BEST NERVE TONIC.
SUSSEX DRUG CO., BRIGHTON

DENOUAL'S MEDICINAL CAPSULES
ARE THE BEST AND CHEapest.

Attention is called to the following prices:

	Trade Price	Retail Price
Peruvian Mixture Capsules	12/4	1/-
Matico Oil and Copiba Capsules	1/-	1/-
Santal Oil Capsules (36 in each box)	2/-	1/-
Cubeb Oil and Copiba Capsules	2/-	1/-
Copiba, Cubeb Oil, and Santal Oil Capsules	1/-	1/-
Copiba Capsules, No. 0	1/-	1/-
" " No. 1	1/-	1/-
" " No. 2	1/-	1/-
Copiba, Alum and Cubes	1/-	1/-
Compound Ferruginous	1/-	1/-
Cubeb Oil	1/-	1/-
Male Fern Oil	1/-	1/-
Cod Liver Oil	1/-	1/-
Castor Oil	1/-	1/-
Denoual's Injection (to ensure a radical cure in two days)	1/-	1/-

ALL DRUGS WARRANTED TO BE GENUINE

Jules Denoual, Carlton House, 4 New Cross Road, London, S.E.

WONDERFUL MEDICINE!

Between thirty and forty years ago a Medicine was introduced to the public, and suffering humanity was invited to try the same.

The Proprietor knew from experience that success was certain, but the human breast is so imbued with prejudice, that it forms one of the strongest barriers to break down and the greatest enemy to overcome before any headway can be made towards the mansion of success. Truth has often proved itself to be "stranger than fiction," and it is a fact as solid as truth that

BEECHAM'S PILLS

have now become one of the leading Patent Medicines of the present day. From north to south, and from east to west, they are to be found in the homes of the rich and the poor. All classes of society use them, and they are by thousands declared to be

WORTH A GUINEA A BOX.

For Weak Stomach, Impaired Digestion, and all Disorders of the Liver, act like "MAGIC," and a few doses will be found to work wonders on the important organs in the human machine. They strengthen the whole muscular system, restore the long-lost complexion, bring back the keen edge of appetite, and arouse into action, with the ROSE-BUD of health, the whole physical energy of the human frame. These are "FACTS" admitted by us, embracing all classes of Society, and one of the best guarantees to nervous and Debilitated is, BEECHAM'S PILLS have the LARGEST SALE of any Patent Medicine in England.

South Africa BEECHAM'S PILLS have the largest sale of any Patent Medicine ever introduced into that part of the World.

All Patent Medicine Dealers abroad will find BEECHAM'S PILLS one of the most profitable and best selling articles in the Market. The demand for them is regular, and all Foreigners who are desirous of getting a First-class Patent Medicine are respectfully requested to procure BEECHAM'S PILLS from the leading Wholesale Houses in England (as no business will be transacted by Foreign House by the Proprietor direct).

CAUTION.—The Public are requested to notice that the words "BEECHAM'S PILLS, ST. HELENS," are on the Government stamp affixed to each Box of the Pills; if not on, they are a Forgery.

Prepared only, and Sold Wholesale and Retail, by the Proprietor,

**THOMAS BEECHAM,
ST. HELENS, LANCASHIRE, ENGLAND.**

In Boxes, 1s. 1½d. and 2s. 9d. each.

N.B.—FULL DIRECTIONS ARE GIVEN WITH EACH BOX



TRADE MARK.
No. 16.

The NORTH BRITISH CHEMICAL CO., Limited
GLASGOW AND LONDON,
MANUFACTURERS OF
IODINE AND RESUBLIMED IODINE
IODIDE AND BROMIDE POTASSIUM,
CHLORATE POTASH,
CAUSTIC SODA, MURIATE and SULPHATE of POTASSIUM,
SALT CAKE, SEAWEED CHARCOAL,

SILVER MEDAL AWARDED INTERNATIONAL EXHIBITION, PARIS, 1878.

GEORGE PUGH, Sole Agent, DUNSTER HOUSE, 12 MARK LANE, LONDON, E.C.

These Preparations received a FIRST-CLASS AWARD (the highest obtainable) at the International Medical and Sanitary Exhibition, South Kensington.

BENGER'S PREPARATIONS OF THE NATURAL DIGESTIVE FERMENTS
LIQUOR PANCREATICUS (BENGER), for the Artificial Digestion of Milk, Gruel, soups, &c. In 4, 8, and 16 oz. Bottles, with full directions for use.
LIQUOR PEPTICUS (BENGER). An exceedingly active Fluid Pepsine. Dose, 10 to 30 drops, with full directions for use.
BENGER'S PEPTONISED BEEF JELLY. A concentrated, partially digested aliment, 2 oz. per fl. oz.
BENGER'S PEPTONISED WHEAT JELLY. Ditto
BENGER'S PANCREATISED FARINACEOUS FOOD, when mixed with water forms a self-digestive food of great value to delicate children and others. TINS, 1s. 6d.

The above may be obtained through all leading Wholesale and Retail Houses.

MANUFACTURERS:

MOTTERSHEAD & CO., 7 EXCHANGE STREET, MANCHESTER.

SUPPOSITORIES, PESSARIES, BOUGIES

Made with Pure Theobroma Oil, and medicated with various Drugs (List on application), in Moulds designed by Mr. B. B. Bowring. See *Pharmaceutical Journal*, May, 1866.

BOUGIES OF IODOFORM AND EUCALYPTUS OIL

As suggested by Dr. W. Watson Cheyne. See *British Medical Journal*, July 24, 1880.

SUPPOSITORIES AND PESSARIES,

Made with non-greasy bases.

PREPARED BY

BRADY & MARTIN. NEWCASTLE-ON-TYNE

Wholesale Agents—MAW, SON & THOMPSON, London.

PURE REFINED CACAO BUTTER

In $\frac{1}{2}$ -lb. and 1-lb. Cakes. Wholesale and for Export. Special Quotations to Large Buyers.

BRADY & MARTIN, NEWCASTLE-ON-TYNE

J. ROBBINS & CO.

METHYLENE

(BICHLORIDE). Discovered to be a general Anaesthetic by Dr. RICHARDSON in 1867.

1-lb. Bottles, 16s.; 8s.; 8s. 6d.; 4s.; 2s.; 2s. 6d.

COMPOUND ANÆSTHETIC ETHER,

For producing Local Anaesthesia.

In 4-oz., 10-oz., and 20-oz. Stoppered Bottles. 2s., 4s., and 7s.

OZONIC ETHER.

4-oz. and 16-oz. Stoppered Bottles. 3s. 6d. and 12s.

PEROXIDE of HYDROGEN.

First introduced as a Medicine by Dr. RICHARDSON.

ETHYLATE of SODIUM

(Dr. RICHARDSON's Formula), for removing Navi, &c. In 4-oz. and 1-oz. Bottles, with elongated Stoppers for applying the Caustic. 2s. 6d. and 1s.

STYPTIC COLLOID,

For promoting the Healing of Wounds by the first intention. In 2-oz. and 4-oz. Bottles, with brush. 2s. 6d. and 1s. 6d.; 16-oz., 12s.

CHARCOAL CAPSULES,

Containing pure Vegetable Ivory Charcoal. In Boxes. 2s. 6d. each.

OXFORD ST.
147

DINNEFORD'S FLUID MAGNESIA



PERFECT IN PURITY AND UNIFORM STRENGTH.

Sold by all Wholesale Druggists, and by the Manufacturer,

DINNEFORD & CO.,

Pharmaceutical Chemists

147 NEW BOND STREET, LONDON.

Dr. J. COLLIS BROWNE'S CHLORODYNE. THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as true as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.

VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the would give Dr. Browne protection.'

JUDGE SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresentation.'

JUDGE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the Vice-Chancellor Wood.'

was produced in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never any other that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant has used the testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published Defendant as testimony to his medicine.

umerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the or of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation he uses the name, testimonials, &c., of Chlorodyne.

techniques in law prevent that protection which the public should justly have against such a course of conduct. It is now sent only to those who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the amp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts lysis has failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

From SYMES & Co., Pharmaceutical Chemists, Medical Hall, Simla,
January 5, 1880.

to J. T. DAVENPORT, Esq., 33 Great Russell Street, Bloomsbury, London.

DEAR SIR,—Have the goodness to furnish us with your best quotations for Dr. J. Collis Browne's Chlorodyne, as, being large buyers, we would much prefer doing business with you direct than through wholesale houses. We embrace this opportunity of congratulating you upon the wide-spread reputation this justly-esteemed medicine has earned for itself, not only in Hindostan, but all over the East. As remedies of general utility, we much question whether a better is imported into the country, and we shall be glad to hear of its finding a place in every Anglo-Indian home. The other brands, we are happy to say, are now relegated to the native bazaars, and, judging from their sale, we fancy their sojourn there will be but transitory. We could multiply instances *ad infinitum* of the extraordinary efficacy of Dr. Collis Browne's Chlorodyne in Diarrhoea and Dysentery, Spasms, Cramps, Neuralgia, the Vomiting of Pregnancy, and as a dative, that have occurred under our personal observation during many years. In Choleraic diarrhoea and even in the more terrible forms of Cholera itself, we have witnessed its surprisingly controlling power. We have never used any other form of this medicine than Collis Browne's, from a firm conviction that it is decidedly the best, and also from a sense of duty we owe to the profession and the public, as we are of opinion that the substitution of any other than Collis Browne's is a deliberate breach of faith on the part of the chemist to prescriber and patient alike.

We are, Sir, faithfully yours,

SYMES & Co.,
Members of the Pharm. Society of Great Britain,
His Excellency the Viceroy's Chemists.

Sold in bottles—1s. 1d., 2s. 9d., 4s. 6d., and 11s. Usual Discount to the Profession.

SOLE MANUFACTURER,

J. T. DAVENPORT, Pharmacist,
3 GREAT RUSSELL STREET, BLOOMSBURY SQUARE, LONDON.

HOW TO SING AND SPEAK WITH PERFECT EA VOCALINE.

TRADE
REGISTERED.



MARK.
REGISTERED.

For Hoarseness, Voice, Throat, and Chest Affections, Coughs, Colds, Asthma, &c. In Bottles at 1s. 1½d. and 2s. 9d.

TONIC DROPS

For Indigestion, Headache, Heartburn, Sickness, Diseases arising from the Stomach and Liver.

In Bottles at 1s. 1½d. and 2s. 9d.

Manufactured only by R. BUXTON, Consulting Chemist, Cavendish St., BARROW-IN-FURNESS.

HENRY'S CALCINED MAGNESIUM

Continues to be prepared with scrupulous care in the greatest chemical purity, by

Messrs. THOMAS & WILLIAM HENRY, 11 East Street, St. Peter's, Lancashire.
And is sold in bottles, authenticated by a Government Stamp bearing their Names and Trade Mark, "Henry's Calcined Magnesia."

Price 4s. 6d., or 2s. 9d.

NEW YORK—MESSRS. J. & S. FERGUSON, Pine Street. **PARIS**—MESSRS. ROBERTS & CO., 23 Rue de Venise.

BY HER
MAJESTY'S



ROYAL LETTERS
PATENT.

DR. HANKS'S



(TRADE MARK.)

Price 1s. 9d., 2s. 3d., and 3s. 6d. per Bottle. Sold by Dr. H. HANKS, 148 Mile End Road, London, England. Wholesale Agents—Newbery & Sons; Millard & Sons; Sanger & Sons; Edwards & Son; J. Thompson & Sons; Barclay & Sons; Lynch & Co.; Hovenden & Sons; and the principal Wholesale Chemists in the Colonies. Export Agents—Evans, Lescher & Webb; Burgoine, Burbidges & Co.; and Export Agency, 65a London, and 52 Castle Street, Liverpool; Baiss, Brothers & Co.

Which is no Quack Imposture, but a genuine, truly useful, medicine, and the quickest and most effectual cure for Neuralgia, Tic-Douleur, Neuralgia, Spasmodic Neuralgia, Hysterical Neuralgia, Earache, Brow Ache, Faceache, Sciatica, Nervous Disorders, Nervousness, Nervous Headache, Nervous Irritability, Nervous Trembling, Nervous Debility, and Nerve Pains, after great success for sixteen years in his private practice, is now before the public. It relieved these diseases when specifics (?) vaunted as cures have been unsuccessful, teeth have been previously extracted, and that without the least benefit. It relieves pain and spasms, strengthens and calms the nervous system, restores sleep, the brain when disturbed by anxiety, worry, and overwork. To raise the spirits, to cheerfulness, to steady the muscles and limbs, in persons weak, depressed and tremulous, excessive drinking, it surpasses all other medicines. Being a Stomachic, a medicine a remedy for Indigestion, and its attending evils.

As a medicine for exportation DR. HANKS'S NEURALGIA and NERVE MIXTURE will attract the attention of Merchants, Shippers, Captains, and Passengers, above all Naval and Military Officers, Residents in the Colonies, and Emigrants, it will often find it a source of relief. This celebrated Mixture is pleasant in taste, and agreeable; its action local and internal; and as it will keep any length of time, posing, all sufferers should have it ready for use to arrest these severe disorders at their

London, July 1st 188

TO WHOLESALE MEDICINE DEALERS.

We guarantee the sale of Hop Bitters, and authorize you to do the same to Customers. If at any time you are dissatisfied with them, please return what have unsold in good condition, and we will remit you amount paid for same.

HOP BITTERS

TO CHEMISTS AND DRUGGISTS, CONFECTIONERS, ELECTRICIANS, DENTISTS, &c.

J. THOMAS DODDEMEADE, Wax Dealer
SPERMACETI, PARAFFIN, EARTH WAXES (WHITE & RED), MYRTLE, CORNUBA, STARINE,
PRICES AND SAMPLES ON APPLICATION.

Note the Address—42 Kynaston Road, Stoke Newington, London.

WRANGHAM'S PREPARED CRUSHED LINSEED,

Which is now used instead of the old so-called Linseed Meal. Made from a "Specially prepared Linseed." Contains all the Oil.

Importer of GENUINE FRENCH BEESWAX, Small Blocks, 2 ounces and upwards.

WRANGHAM'S GENUINE COLZA OIL.

RICHARD H. WRANGHAM

(Successor to FOSTER & WRANGHAM),

OIL BOILER AND REFINER, SEED CRUSHER, PAINT & COLOUR MANUFACTURER,

LIME STREET GROVES, HULL.

PETROLEUM IMPORTER Established over a Century.

HOLLOWAY'S PILLS AND OINTMENTS

Have the Largest Sale of any Medicine in the World.

MANUFACTURED ONLY AT Professor HOLLOWAY'S Establishment

533 OXFORD STREET, LONDON, W.C.

And sold at 1s. 1½d., 2s. 9d., 4s. 6d., 11s., 22s., and 33s. each Box.

Chemists and Druggists selling "Holloway's Pills" application to the above address, or to the Wholesale House, shall be supplied free of charge with Handbill name and address printed at foot.

For Wholesale Terms see List of "Proprietary Articles" most Price C

INDEX TO ADVERTISING

SEE PAGES 21, 22

FREEMAN'S CHLORODYNE

THE ORIGINAL AND ONLY TRUE.



Discovered and Invented by RICHARD FREEMAN in 1844.

Is one of those preparations so well known as having something in its composition which defies the imitator, and makes it an infallible remedy. No other remedy known can be exhibited with so much confidence as a SEDATIVE, an ANTI-SMOKING, an ASTRINGENT, an ANODYNE, or DIAPHORETIC.

Its composition and effect it bears no resemblance to any of the many formulae published, but has curative and chemical properties peculiarly its own, nor is there any analytical test for it. It has been found by the Profession and large numbers of patients to succeed after all imitations had failed, and maintains its unaltered position as the only reliable CHLORODYNE.

TESTIMONIALS.

HEAD-QUARTER STAFF, CABUL, May 31st, 1880.

FR. — It is with much pleasure that I am able to state that your Chlorodyne has been of special service to me in alleviating the wearisome spasms which are here existent in an aggravated form. Many of my patients now come and beg me to give them that medicine which always relieves them, and which I need hardly say is your Chlorodyne.

Yours faithfully,

CHARLES W. OWEN, L.R.C.P., Lon., M.R.C.S., Eng.
The Divisional Head Quarter Staff and Civil Surgeon, Cabul.

THE "TIMES," AUGUST 13th, 1877.

From our own Correspondent with the Russian Army. OROUM, July 25th, 1877.

W. of sanitary arrangements in the Russian camp was dreadful, and had we remained there a few weeks longer dysentery and typhoid fever would have reigned more havoc in our ranks than the bombs of the Turks. I myself acquired an unenviable reputation as a doctor, owing to my being unable to effect a cure, until I had a small bottle of CHLORODYNE, with which I effected miraculous cures.

IMPORTANT. CAUTION.—Four Chancery Suits terminated in favour of FREEMAN'S CHLORODYNE and against Collis Browne and Davenport. Lord Chancellor Selbourne, Lord Justice Mellish condemned their proceedings, and decreed them to pay all costs. Reports of the trials appear in "Times," January 12 and July 13, 1864, and April 29 and July 24, 1873, and "British Medical Journal," Jan. 8, 1873.

OLD BOTTLES, 1s. 1½d.; 2 oz., 2s. 9d.; 4 oz., 4s. 6d.; 8 oz., 9s.; half pints, 11s.; and pints, 20s. each; and for dispensing only fl. 8 oz. 8s., and fl. 20 oz. 18s. (in weight one pound and a half). A liberal discount allowed. Special quotations given to Hospitals, Workhouses, Infirmaries, and other Public Medical Institutions. Full directions in various languages.

SOLE MANUFACTURER—

RICHARD FREEMAN, PHARMACIST, 70 KENNINGTON PARK ROAD, LONDON, S.E.

RELIEF FROM COUGH IN TEN MINUTES.

AYMAN'S BALSAM OF HOREHOUND

IS the most certain and SPEEDY REMEDY for all DISORDERS of the CHEST and LUNGS. In Asthma and Consumption, Bronchitis, Coughs, Influenza, Difficulty of Breathing, Spitting Blood, Whooping Cough, Hoarseness, Loss of Voice, &c., this Balsam gives instantaneous relief, and, a properly persevered with, scarcely ever fails to effect a rapid cure. It has now been tried for many years, has an established reputation, and many thousands have been benefited by its use.

IT HAS A MOST PLEASANT TASTE.

IMPORTANT TESTIMONIAL.—"AMPORT FIRS, ANDOVER, MAY 29, 1869.—Sir, I have for some years had your Balsam of Horehound for Mrs. B. Webster, and intended writing to tell you how much benefit she has derived. She was considered consumptive, but the Balsam has quite restored her, and she is now quite strong. I have recommended you dozens of customers, and all have been pleased with it.—I am, yours, &c., H. B. WEBSTER." Mr. HAYMAN, Chemist."

MR. HORROX, Chemist, Mildenhall, writes to say:—"One of my customers says your Balsam is worth sixpence a drop."

IN THE NURSERY it is invaluable, as children are fond of it and take it eagerly. Immediately it is taken coughing ceases, restlessness is removed, and sleep ensues. No lady who has once tried it would ever afterwards be without it.

PREPARED ONLY BY A. HAYMAN, Chemist, Neath; and sold by all Chemists. Price 1s. 1½d. and 2s. 9d. per Bottle.

WHOLESALE AGENTS.—W. Sutton & Co.; Barclay & Sons; Newbery & Sons, &c., London; Felton, Grimwade & Co., Melbourne; Sydney and Brisbane, Australia; Kempthorne, Prosser & Co., Auckland and Dunedin, New Zealand; Smith, Stanistreet & Co., Calcutta.

REYNOLDS'S GOUT SPECIFIC.

NO MORE GOUT!

NO MORE RHEUMATISM!!

THIS FAMOUS MEDICINE for GOUT and RHEUMATISM has had a reputation of OVER SIXTY YEARS. It gives relief where every other remedy has failed. The most agonising pains are relieved in a few hours by a single dose, and a few repetitions restore the use of the limbs, and leave the sufferer in perfect health.

PRICE, RETAIL, 2s. 9d. and 4s. 6d. PER BOTTLE.

Wholesale—Barclay's, Newbery's, Maw's, Edwards', Lynch's, Sutton's, and Sanger's, and all the principal Patent Medicine Vendors.

SOLE PROPRIETOR,

PERCY LITCHFIELD, 39 London Road, TWICKENHAM.



**CHEMISTS' AND DRUGGISTS'
SHOP BOTTLES AND JARS
WITH BURNT-IN LABELS.**

Narrow-mouthed and Wide-mouthed Bottles, well Stoppered.

Capped and Tube-stoppered Oil Bottles.

Syrup Bottles, with Plug Stoppers of Dark Blue or White Opaque Glass.

Lozenge Jars with Cut Glass Knobs.

Cut Perfume Bottles, Round, Oval, and Square.

Shop Jars of Best Porcelain, thoroughly Grease Proof.

Labels Indestructible and of Elegant Appearance, forming an even surface with the Glass or Porcelain.

PRICE LISTS ON APPLICATION.

A Large Variety of Samples on Show at

**H. POTHS & CO.,
4 SUGARLOAF COURT,
50 LEADENHALL STREET, LONDON, E.C.**

Many Shops have now been fitted either entirely or partially with these Bottles, Jars, &c., and in every case their appearance recommends them ; and with regard to their durability, the experience of many years in all parts of the Continent has sufficiently proved them to be superior to any other description of label.

TRUSSES
The World's Recognition of Merit

LONDON—1881—ANNOUNCEMENT.

At the late INTERNATIONAL MEDICAL AND SURGICAL EXHIBITION, the World's most competent Judges cognised unequalled excellence by granting the

ONLY "AWARD OF MERIT" for TRUSSES

"To I. B. SEELEY, PHILADELPHIA, U.S.

(Over Sixty-Eight Competitors), confirming the high fa-

vor with America's most distinguished Surgeons.

London Exhibition Judges.—Thomas Bryant, F.R.C.S., Mr. Stopher L.

F.R.C.S., Thomas Smith, F.R.C.S., John Wood, F.R.S., R.C.S.

SEELEY'S HARD RUBBER RUSS



Fig. 4.



Fig. 5.



Fig. 6.

Fine Steel Springs, neatly covered with highly polished Rubber. Made in every desirable pattern ; with ends anatomically constructed. Light, cool, cleanly, durable ; unequalled in quality, finish, and practical construction. Unaffected by time, climate ; used in bathing. Always Reliable. Prices reduced to meet the popular demands. Sold by all leading Druggists and Dealers in the Trade. To avoid Spurious Imitations, see G. stamped ("Spring and Strop"). "I. B. Seeley" Warrant

Establishment, 1347 Chestnut Street, Philadelphia, U.S.A. Branch Establishment, 74 Fleet St., London, England.

The Correct and Skilful Mechanical Treatment of HERNIA RUPTURE A SPECIALTY.

Under Patronage of our most Eminent Surgeons.

Reference.—Professors S. D. Gross, D. Hayes Agnew, Willard W. H. Pancoast, Dr. Thomas G. Morton, & others.

As success finds Imitators, ask for "SEELEY GENUINE"

"SEELEY'S HARD RUBBER PILE PIPES,"

Immediate Relief and Treatment of HEMORRHOIDS OR CLEPSYDRA.

Choice assortment of Elastic Surgical Hosiery, Belts, &c., proved safe Bandages, Shoulder Braces, &c.

**SALMON, ODY & CO., 292 Strand, LONDON.
PATENT TRUSS MANUFACTURERS.**

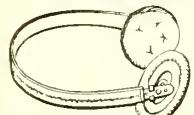


FIG. 1. Patent Single.

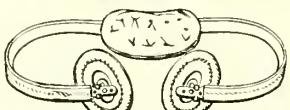


FIG. 2. Patent Double.

TRADE
SALMON'S
PATENT.
MARK.

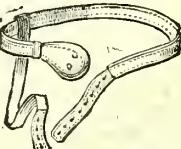


FIG. 3. Common Single.

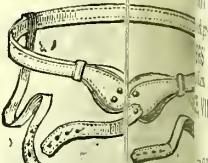


FIG. 4. Common Double.

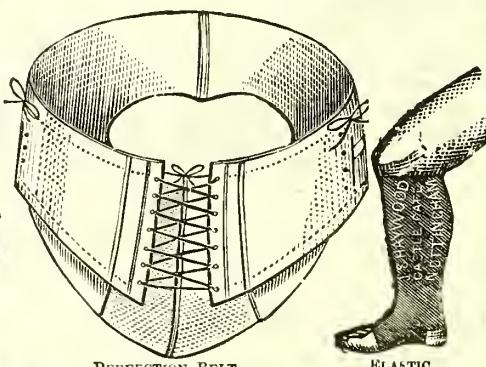
N.B.—Customers are invited to order direct from S. O. & Co., or to advise their Agents to do so, as the GENUINE article cannot be obtained elsewhere and none are

their make unless stamped with Registered Trade Mark on Springs and Plates. Price List free on application.

HAYWOOD'S SURGICAL APPLIANCE



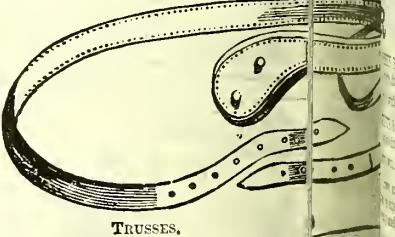
SPINAL COLUMN SUPPORT
(REGISTERED).



PERFECTION BELT
(REGISTER'D).



ELASTIC STOCKINGS.



TRUSSES.

Greatest attention paid to Special Orders, which are invariably forwarded per return of post.

List of Prices and Directions for Measurement forwarded on application.

J. S. HAYWOOD, Castle Gate, NOTTINGHAM.

ORDER OF MERIT AWARDED AT MELBOURNE EXHIBITION, 1880.
PRIZE MEDALS, INTERNATIONAL EXHIBITIONS.



KILNER BROTHERS, MANUFACTURERS OF GLASS BOTTLES,

Of which the following are principal kinds:—

GOSTS' BOTTLES, for Powders, Pills, Acids, Citrate of Magnesia, and other products supplied by Chemical Manufacturers and Wholesale Druggists.

TO OIL, COD LIVER OIL, AND HAIR OIL BOTTLES of various shapes, plain and fancy, with or without stoppers.

BOS for Vitriol, &c., of all sizes, with or without Baskets.

PEMING & OTHER BOTTLES, both green and white, for the use of Chemists, Surgeons, and Manufacturers of Patent Medicines, &c.

FLUE BOTTLES, in different sizes and shapes, suitable for both the Wholesale and Retail Trade.

ER. WATER BOTTLES for all kinds of Aërated Drinks, of every shape and colour, suitable either for Corks, or the various Patent Stoppers now in use.

ED SPIRIT BOTTLES, of various shapes and sizes, and in suitable colours. **ALE** and **PORTER** Bottles in the dark green colour now so much preferred, both for Corks and Barrett & Elers' Screw Stoppers.

EFETIONERS' BOTTLES, with or without stoppers, comprising Drops, Barley Sugars, Jellies, Rock, Jam, and armalade Jars.

KLESAUCE, VINEGAR, and Wholesale Oilmen's Bottles in great variety, with or without Stoppers.

Special attention to our **GLASS MEASURES**. They are made of the *very best* quality of glass, and the accuracy of the graduations is verified. **PRICES** (including stamping in accordance with the new Act):—

2 d.	½	1	2	3	4	6	8	10	12	16	20	24	32	40	oz.
11/6	9/6	1½/6	11/6	13/6	15/6	18/-	19/-	21/-	23/-	26/-	29/-	32/-	36-	40/-	per dozen.

DISCOUNT ACCORDING TO QUANTITY ORDERED.

We beg to solicit Orders for our New Feeders, at the following prices:—

OUR BABIES' BOTTLES."

GREEN BOTTLES, with boxwood top corks and white fittings, 36s. per gross.

Ditto, with brown or black fittings, 42s. per gross.

WHITE BOTTLES, with boxwood top corks and white fittings, 38s. per gross.

Ditto, with brown or black fittings, 44s. per gross.

Above are put one dozen in a wooden box, or can be supplied, each bottle in a cardboard box, neatly labelled, at 6s. per gross extra.

Spare Bottles—Green, 13s. per gross; White, 15s. per gross.

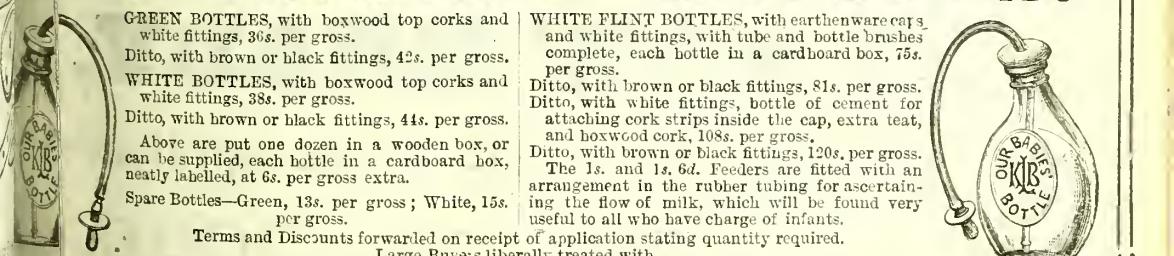
Terms and Discounts forwarded on receipt of application stating quantity required.
Large Buyers liberally treated with.

LONDON OFFICES AND WAREHOUSES:

3. GREAT NORTHERN GOODS STATION, KING'S CROSS.

WORKS:—THORNHILL LEES AND CONISBORO', YORKSHIRE.

Illustrated Price Lists and Samples forwarded on Application.



**GREAT SAVING OF
MONEY AND LABOUR.**

SOMETHING NEW ELEGANCE AND
PATENT RECESS LABELLED SHOP ROUNDS. DURABILITY COMBINED
compare following Net Prices. These Prices include Glass Labels attached to Bottles ready for use.

Size.	Height.	FLINT GLASS.	BLUE GLASS.	Size.	Height.	FLINT GLASS.	BLUE GLASS.
		N.M.	W.M.			N.M.	W.M.
16 ounce	8 inches	16/6	18/6	20/	22/ per dozen.	32 ounce	10½ inches
20 "	9 "	17/6	20/	21/	23/	42 "	11 "

Prices of other Shop Bottles, &c., on application. Sample Bottles sent on receipt of 1s. 1d. in stamps. Facsimile Sheet Labels, in various styles, sent on

of two stamps. Amongst others, the following parties have recently been supplied with these Bottles:-

Aly, Dr. J. C., Rangoon.	Forwell, H., Helensburgh.	Maston, G., Hartlepool.	Roaman, J. & R., Glasgow.
Beckwith, H., B., Grenada.	Fowler, W. E., Hull.	M'Caul, J. & G., Londonderry.	Senior, Harold, North Leamington.
Blair, John, Cork.	Gardiner, A. W., Auckland, New Zealand.	M'Kirdy, J., Rothesay.	Sibthorpe, S., Wolverhampton.
Bray, W., Pollokshields.	Gibbs, R. D., Smethwick.	M'Raee, Alexander, Edinburgh.	Smith, Albert, Ifrachie.
Brevia, John, West Hartlepool.	Gibson, Robert, Hulme, Manchester.	Morris J. L., Moss Side, Manchester.	Taylor, W. G., Hunford.
Brocq, P. De Le, Jersey.	Henry, J. P., Belfast.	Noble, A., Galashiels.	Todd, Joe, Carlisle.
Brunwell, H., Sutton, St. Helens.	Keith, John, Leeds.	New Medical Hall, Campbelltown.	Wallace, Wm., Glasgow.
Brunton, W. W., South Kensington, London.	Kinnimont, A., Glasgow.	Pattison, H., Coleham, Shrewsbury.	Walton, M. F., Sowar Bridge.
Carruthers & Allan, Dumfries.	Laidlaw, Walter, Denny.	Pettigrew, J. W., Lenzie.	Waterhouse, A., Dewsbury.
Cattford, G. W., Cricklade, Somerset.	Londale, A. W., Rangoon, Burmah.	Pituck, F. W., Hibburn, Newcastle.	Western Medical H., Glasgow.
Cullen & Co., South Norwood, London.	Mackie, Ian, Edinburgh.	Quiray, W. D., Belfast.	Wills & Woolton, Liverpool.
Cummings Bros., Dundee.	Mackie, Kinn, Paisley.	Rand, E., Wagga Wagga, New South Wales.	Wing, Lewis, Chiswick.
Day, J., Savile Town, Dewsbury.	Mason, V. D., Grimsby.	Robinson, H., Quinsay, Leeds.	Woodcock, A., Colwall, Hereford.

Sole Agents: **GLASGOW APOTHECARIES' COMPANY**, Virginia Street, Glasgow.

BENTLEY'S NEW OPAL GLASS POTS

FOR DISPENSING, TOOTH PASTE, COLD CREAM, AND OTHER PURPOSES.

PRICES	Lip Salves	½ oz.	¾ oz.	1 oz.	1½ oz.	2 oz.	3 oz.	4 oz.
	1/4	1/4	1/4	1/6	1/8	1/10	2/1	2/8

E. BENTLEY, Druggists' Sundryman,

Manufacturer of Ship and Family Medicine Chests of every description. All kinds of Bottles for Chemists and Pharmacists kept in stock or made to order.

9 WINDMILL STREET, and 1 & 2 HILL STREET, FINSBURY, LONDON, E.C.

WILLIAM TOOGOOD'S REVISED PRICE LIST

Of Glass Bottles, Earthenware, Druggists' Sundries &c.,

IS NOW READY.

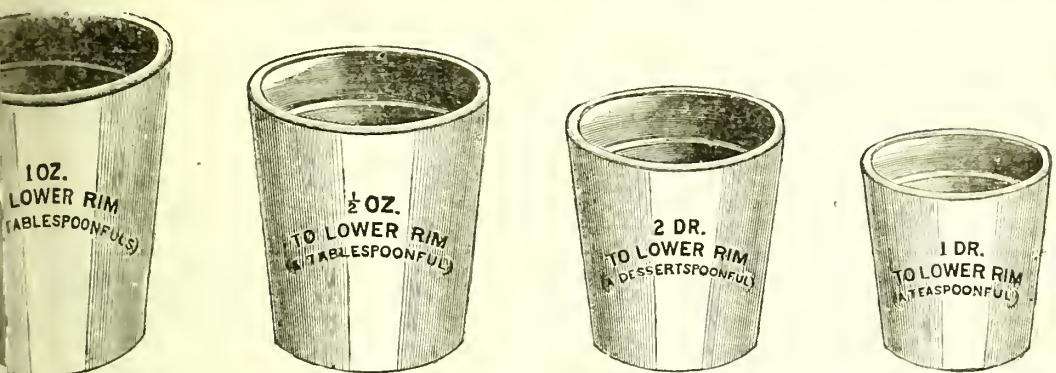
And will be forwarded upon application.

WILLIAM TOOGOOD,

36 & 37 MOUNT ST., GROSVENOR SQUARE, LONDON,

Shippers, Wholesale Buyers, and Large Consumers supplied upon favourable terms.

IMPROVEMENT IN PROCTOR'S CURENWARE MEDICINE MEASURES.



oose, 10s. per gross; in boxes of one dozen, 1s. per gross extra.

A LIBERAL DISCOUNT TO WHOLESALE BUYERS.

above combine accuracy, simplicity, and cheapness; if one to hold desired measure were given with each bottle of medicine, a mistake in the quantity would be almost impossible.

L. W. SON & THOMPSON, Aldersgate St., London.

CERTAIN CURE FOR DEAFNESS.

This valuable "Specific" hundreds have been cured of this distressing malady. For Cold in the Head with Ear, it is most efficacious. The highest testimonials are enclosed, with directions for use with each bottle.

**OSBORNE'S
OLDEN DROPS**



REGISTERED
TRADE MARK

**OSBORNE'S
GOLDEN DROPS**

The highest Testimonials are enclosed, with directions for use with each bottle.

Brief."—"GOLDEN DROPS FOR DEAFNESS.—E. M. Osborne has produced a valuable specific for this distressing complaint. We find its efficacy, and can, with confidence, recommend it to the public as an excellent remedy. It is perfectly harmless, and the directions for use are simple. It is secured by a registered trade mark, 'Human Ear,' by which the genuine article may be recognised."

TESTIMONIALS.

JULY 4, 1877.—Sir,—My niece, who came to stay at my house, was suffering from Deafness and difficulty of breathing, owing to the fits caused by Quinsy. She tried your wonderful 'Specific,' and after applying it a little more than a week her hearing and breathing I am glad to communicate this as the medium of personal thanks and for the good of others,—Yours truly, C. L.

JULY 5, 1877.—Sir,—Be so good as to send me six bottles of your 'Cure for Deafness,' and you will oblige. I am much better. Shall I be so good as to let me know. It has done me more good than physicians to whom I have paid twenty guineas; they cannot do me any J. P.

JUNE 10, 1878.—Sir,—During the last few weeks my little girl has been quite deaf, and suffering con- left ear. I was recommended to use your 'Golden Drops for Deafness,' and I am delighted to say that, after applying them three away two large secretions of foul matter. The child can now hear distinctly the faintest sounds, and is free from pain. I send you some testimonial sheets I will distribute them amongst my friends."

Wholesale and Retail Chemists, price 1s. 1½d., 2s., 2s. 9d., and 5s. 6d.; or free by post for 1½d. extra from

M. OSBORNE, 26 THAVIES INN, HOLBORN CIRCUS, LONDON.

Export Agents—EVANS, SONS & CO. London; and EVANS, LESCHER & WEBB, London.

JAMES EPPS & CO.'S HOMEOPATHIC MEDICINES

ARE SUPPLIED IN BOTTLES

FULLY LABELLED,

WITH PRINCIPAL USES, DOSE, AND REPETITION

For Price List send Trade Card to

48 THREADNEEDLE STREET.

FRENCH PATENT SCREW GLASS POTS & BOTTLES WITH METALLIC NICKLED CAPSULES.



The above new method will show advantageously Jams, Jellies, Honey, Dragees, Cachous, Pills, Lozenges, &c., especially adapted for Export, and excels all others for neatness and elegance. Made in various new Designs—Pots, "Kalis" in shaped Bottles, &c. Spécialité for Bottles for all kinds of Confectionery, Essences Manufacturers, and Sundries. (Wholesale &c.)

THE LARGEST ASSORTMENT IN ENGLAND.

G. V. DE LUCA, French Flint Glass Manufacturer, 21 Jewin Crescent, INDON, E. To be had of all DRUGGISTS' SUNDRIESMEN.

COTTAGE GLASS WORKS,

William St., Lambeth, London, S.E.

All descriptions of Bottles (blue or green tints) used in Medical Trade, Vials and Fancy Jars, &c., used in Perfumery and Druggist Trades, made at Cheapest Rates compatible with best work.

JOHN M'LACHLAN & CO.

Wanted, Country, Colonial, and Foreign Agents, to sell on Commission. Terms liberal.

N.B.—*Shippers supplied on most advantageous terms.*

BROKEN GLASS BOUGHT.

For Best Composition, Acid Proof, MORTARS & PESTLES,

ALL SIZES.

COMPOSITION PILL TILES AND FUNNELS.
EARTHENWARE—COVERED POTS, } ALL SIZES.
" GALLIPOTS,
" UNIONS.
" MEDICINE SPOONS.
" INVALIDS' FEEDERS.
" INFUSION JUGS.
" SHOP JARS.
" BED PANS.
" URINALS, ETC., ETC.

Special attention to Export Orders. Apply for Price List and Special Quotations to

EDWARD S. INSULE,
HANLEY, STAFFORDSHIRE.

Original Plaster Works.

ESTABLISHED OVER 60 YEARS.

A. De St. Dalmas, 40 Belgrave Gate, Leicester.

MEDICAL PLAISTERS

Of all kinds (Best Quality) for HOME and EXPORT. POROUS PLAISTERS—Yards or Boxes. Order "St. Dalmas's" through Wholesale Houses. Prices on application.

GLASS BOTTLES

OF EVERY DESCRIPTION

Winchesters, Corbyns, pale or blue, stoppered or plain; also Carboys and Basket

DIRECT FROM THE FACTORY.

JOHN LUMB & CO.

CASTLEFORD, YORKSHIRE.

TINFOILS, METAL CAPSULES, VEGETABLE PARCHMENT.

C. F. BROWN & CO., 3 Tower Royal, NDON, E.

W. S. YATE,
Chemists' Shop Fitter, Shop Fronts, Build
and Glass Show Case Manufacturer.

DENTIST CASES.
PLANS AND ESTIMATES SUPPLIED FOR WORK IN ANY PART OF THE KINGDOM.

9 CAMDEN STREET, LIVERPOOL.

FRANCIS'S BRONCHIAL PROTECTOR

REGISTERED TRADE MARK

Best Preventive and Cure of Bronchitis, Asthma, and other Throat Complaints.

Manufactured by A. DE ST. DALMAS, Leicester.

Prices—1s. 1d. and 2s. 9d.

To be obtained through all the Wholesale Druggists.



ESTABLISHED

NEARLY

KAYE'S WORSDELL'S PILLS.

100

YEARS.

These "VEGETABLE" Pills are recognised all over the world as the
BEST FAMILY MEDICINE.

Should be kept by all Chemists, as they command a continuous and steady sale. They purify the Blood, cure Indigestion, Dyspepsia, Liver Complaints, Rheumatism, Headache, and General Debility. Thousands of Testimonials. Sold by all Chemists throughout the world. Prices, 1s. 1½d., 2s. 9d., and 4s. 6d. per Box.

JOHN KAYE, SOLE PROPRIETOR.

Wholesale and Export Depôt—3 BOLT COURT, FLEET STREET, LONDON, E.C.

now Cds and Counter Bills supplied to the Trade on application.

Of all the Wholesale Houses.

"FOR THE BLOOD IS THE LIFE."

CLARKE'S WORLD FAMED BLOOD MIXTURE, The Great BLOOD PURIFIER and RESTORER.

(Registered Trade Mark—"BLOOD MIXTURE.")

Celebrated CURE FOR Scrofula, Scurvy, Blood and Skin Diseases, and Sores of all kinds.

Wholesale of all the Wholesale Houses, at 24s. and 108s. per dozen, less the usual discount.

Proprietors, THE LINCOLN & MIDLAND COUNTIES' DRUG COMPANY, LINCOLN.

unter Bills and Posters, with Name and Address, also Show Cards, on application. Printed matter supplied in any Language for Foreign Agents.

ENTION—Mr. CLARKE will take immediate proceedings against all persons pirating his Trade Mark, "Blood Mixture," Labels, Wrappers, &c., or Advertisements, or in any way infringing his rights.

TOWLE'S CHLORODYNE

The Original Preparation, as approved by the Medical Profession on account of its known composition and uniform strength.
tail 13½d., 2s. 9d., and 4s. 6d. Dispensing, 4 ozs., 4s. 6d., and 10 ozs. 11s., stamped.

Liq. CHLORODYNII,

As originally introduced by A. P. Towle, and free from stamp duty for dispensing.

4 ozs., 4s.; $\frac{1}{2}$ lb., 5s. 6d.; 1 lb., 10s.

TOWLE'S CHLORODYNE LOZENGES AND JUJUBES,

In 2, and 4 lb. Bottles, at 3s. per lb., and 6d. and 1s. Boxes.
lled, lined and neatly got up for the counter, 4s. 6d. and 9s. per doz.

A. P. TOWLE, Chlorodyne Manufacturer,
5 BACK PICCADILLY, MANCHESTER.

Bills with name on application with instructions for forwarding.

GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.

JOHN OAKLEY & SONS,

MANUFACTURERS OF

Glass Paper, Emery and Glass Cloth; Emery, Black Lead, Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish, Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.

OAKLEY'S WELLINGTON KNIFE POLISH,

Prepared expressly for Oakey's Patent India-Rubber Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines. Id in Packets 3d. each; and Tins, with perforated Tops to prevent waste, 6d., 1s., 2s., 6d., and 4s. each.

OAKLEY'S NON-MERCURIAL SILVERSMITH'S SOAP,
For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

OAKLEY'S POLISHING PASTE,
For Cleaning Brass, Copper, Tin, Pewter, &c., &c. Boxes, 1d.; Tins, 2d.; Pots, 6d. and 1s. each.

WELLINGTON BLOCK BLACK LEAD,
In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876.

GOLD MEDAL, ADELAIDE, 1881.

DIPLOMA OF MERIT, VIENNA, 1873
ORDER OF MERIT, MELBOURNE, 1873

Needham's
Polishing Paste,
For Cleaning Brass
Copper, and Britan
Metal Goods, &c.

Joseph Pickering & Sons (J. Needham), Albyn Works, Sheffield. Shield Knif

Pickerings' Razor
Paste,
For sharpening Razors, &c.

Waterproof
Harness Blacking,
For Black Leather
Harness.



"LA BRILLANTINE"

(REGISTERED)

Is used by the Life, Horse, and Dragoon Guards,
the Fire Brigades, &c.

METALLIC POWDER
For Cleaning and Polishing
Metals and
Glass (especially Glass).

PROPRIETORS
J. F. BAUMGARTNER & CO
22 NEWMAN STREET, OXFORD STREET,
LONDON, W.

Sold by all Wholesale Houses. Care of Imitation.

LEON CLERC,
THE FIRST REFINER OF BENZOLINE IN ENGLAND

BURNING & SOLVENT NAPHTHAS at Market Quotations.

Importer of PETROLEUM OIL, Choice Brands only; SOREL'S FRENCH COLZA
Pure; GROUND NUT OILS, for Frying, Making Hair Oil, &c.

LUBRICATING OILS, from 1s. 6d. to 3s. per gallon. Highly Recommended.
Manufacturer of LAMPS of all Descriptions, Globes, Chimneys, Wicks, Cis, Watering Cans, &c.

EMPTY BARRELS—Best Prices given throughout the Year.

QUOTATIONS AND DRAWINGS SENT FREE ON APPLICATION.

WAREHOUSE: 48 COMMERCIAL STREET. WORKS: DAVEY ROAD, HACKNEY W10 LONDON

PANTS. VARNISHES. WOOD STAINS.

THOMAS S. JACKSON



VIENNA.

MAD MIXED PAINTS,

shaded 1, 2, 4, 7, and 14-lb. Tins.

ISEOF, and SALEABLE TINTS,

various colours, well packed, and guaranteed to Dry Well.

LAN SOME SHOW BOARDS

Glazed), with Specimens of Colours, supplied.

CES AND SAMPLE CARD ON APPLICATION.

NOTICE.—All communications should be addressed to the Office—

YTO'S BUILDINGS, 199 HIGH STREET, SOUTHWARK, LONDON, S.E.

There is no connection with any firm of a similar name.

ESTABLISHED 1853.

BESSEMER'S GOLD PAINT.**RETAIL PRICES:**

1 Bott. of Gold with Liquid um "	1s. 6d.	Large Bottles of Gold	3s. 6d.
" " & Bowl & Brush	2s. 6d.	Liquid	0s. 6d.

To be obtained of all Chemists, Artists' Colourmen, and Druggists' Sundriesmen.

NEW 1s. 6d. and 2s. 6d. PACKETS.

ITEM.—1 Bottle Gold Powder, 1 Bottle Mixing Liquid, 1 Mixing Bowl, 1 Brush, in Cardboard Box. The Bowl and Brush are not required, the usual 1s. 6d. Packet should be purchased, as it contains a larger quantity of both Gold and Liquid.

A paper and Silver Paint, at the same prices, and yielding equally good results, can be obtained.

NOTE.—The Gold Paint is so easy of application, economical in use, and excellent in appearance, that it is extensively employed in the decoration of Decorative Mouldings, Carvings, and all Fancy Ornaments made either of Metal, Wood, Porcelain, or Plaster, and the effect can be produced, even by unskilled hands, makes it useful to all engaged in fancy or home embellishment.

Proprietor, RICHARD J. ALLEN, Mansfield Place, Kentish Town, London, N.W.
If Translations are supplied, Circulars, Cards, or Labels will be printed in any language necessary for its sale.**MORRISON & THEW**

(Late C. F. THEW & CO.).

ELLIC & GUM MERCHANTS,EARLTON DYE STUFFS, & PAPER MERCHANTS,
Faulkner St., Portland St., MANCHESTER.

Samples and Prices on application.

Goddard's Plate Powder

Nearly Half a Century this Powder has sustained an unrivalled reputation throughout the United Kingdom and the Colonies as the BEST AFEST article for Cleaning Silver and Electroplated Boxes, 2s. 6d., and 4s. 6d. each. Also

GODDARD'S FURNITURE CREAM,
Sold by all Patent Medicine Houses and Wholesale Druggists,
Manufactured by J. GODDARD, Station St., Leicester.

LONDON.

WOOD STAINS,**"SPECIAL."**MAHOGANY, OAK, WALNUT,
SATINWOOD,
ROSEWOOD, EBONY.Draught, or packed in 6d. bottles (1-pint).
Also in powder.**SHOW BOARDS,**

With specimens of the Stained Woods, supplied.

The demand for these Stains is steadily increasing. They possess great richness and truth of colour, and

ARE OFFERED AT A REASONABLE PRICE.

MARBLE RENOVATOR,For Cleansing and Polishing Marble. Retail at 8d., 1s. 2d., and 2s.
Surprising in its Effects.**"ANTI-RUST,"**

For Preserving all kinds of Polished Steel, Iron, and Gun Metal from RUST. Used with Success by some of the largest Sheffield Steel Manufacturers.

Retail at 1s. Wholesale from—

CUBLEY & PRESTON, 4 High Street, SHEFFIELD.
And all Wholesale Houses.**FOR CLEANING PLATE.****BRADLEY & BOURDAS'S ALBATUM or WHITE ROUGE,**
For Cleaning Gold, Silver, and Plated Goods.

Since its introduction as a substitute for the ordinary Rouge, a quarter of a century ago, the sale has amazingly increased both at home and abroad. A trial is only needed to prove its superiority over other plate powders in use. Sold in Boxes at 1s. and 2s.; Tins, 6s. 6 Pont Street, Belgrave Square, and 48 Belgrave Road, London, S.W.

HORSE, CATTLE, AND SHEEP MEDICINES.

BY ROYAL APPOINTMENT.



By Special Warrant,
Dated 27th December, 1865.

DAY, SON & HEWITT,

INVENTORS AND SOLE PROPRIETORS OF THE



By Special Warrant,
Dated 10th February, 1866.

"ORIGINAL" STOCK BREEDERS' MEDICINE CHESTS,

For all Disorders in Horses, Cattle, Calves, Sheep, and Lambs.

Patronised for over 40 years by Royalty, and the principal Stock Breeders, Horse Proprietors, and Agriculturists of the British Empire.

The No. 2 MEDICINE CHEST contains the following matchless remedies:—

- "CHEMICAL EXTRACT," for all External Injuries, and Ewes Lambing.
- "GASEOUS FLUID," for Colic, Scour, or Diarrhoea, and Debility.
- "RED DRENCH," for Cleansing Cows and Ewes, and for Inflammation.
- "RED PASTE BALLS," for Mares after Foaling, and Conditioning Horses.
- "BRONCHOLINE," for Husk or Hoose in Sheep, Lambs, and Calves.
- "GASEODYNE," for Heaving and Paining, "CARMINATIVE CHALK," &c.

Price of Chest, with Guide to Farriery, £2 16s. 6d. No. 1 Complete Medicine Chest, in Polished Case £6 6s.
Horsekeeper's Chest, No. 4, £2 17s. 6d.

CARRIAGE PAID TO ALL PARTS OF THE BRITISH ISLES.

Admirably adapted for all ordinary ailments among Stock, and each preparation can be had separately. Full and easy directions enclosed.

Awarded "Certificate of Merit" by the National Agricultural Society of Victoria, Australia, 1871; President's Medal, Spalding, 1871; Silver Medal, Manchester and Salford Show, 1874; Silver Medal, Preston, 1875; Silver Medal, Northamptonshire Agricultural Society, Salford, 1875; Silver Medal, Cheshire Agricultural Society, Crewe, 1875; Special Prize, National Agricultural Society of Victoria, Australia, 1875; Silver Medal, Chester, 1876; Silver Medal, South African Exhibition, Cape Town, 1877; Silver Medal, Northumberland Agricultural Society, Newcastle-on-Tyne, 1877; Silver Medal, Knutsford, 1878; Medal, North Berwick, 1878; Medal, Dairy Show, London, 1878; Silver Medal, Derby, 1879; Silver Medal, Wellingborough, 1879; Medal, Bentham, 1880; Medal, Melbourne Exhibition, 1880; and Silver Medal, Stourbridge, 1881.

CAUTION.—Beware of Imitations, and see that the name of DAY, SON & HEWITT is on all Bottles and Packets.

Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, BAKER STREET, LONDON, W.

And sold by Messrs. Burgoyne, Burbidges & Co., Barclay & Sons, W. Edwards, Newbery & Sons, Sanger & Sons, and all Wholesale Druggists, in London; Hood & Co., Melbourne; Kempthorne, Prosser & Co., Dunedin and Auckland; Fairthorne & Co., Launceston.

HORSES.—LIEUT. JAMES'S BLISTER

(Manufactured by R. J. JAMES, the Grandson of the Inventor).

This celebrated Blister is now offered to the Trade at the following reduced prices:—

1 oz. pots from	14/- per doz. to	12/6 per doz.	1 lb. pots from	£4 4/- per doz. to	£4 0/- per doz. to
2 "	£1 5 6 "	£1 3 0 "	1 "	7 16 0 "	7 10 0 "
4 "	2 8 0 "	2 4 0 "			

Observe the Trade Mark.—"A Horse's Head on the top of each Pot, and the signature, R. J. James."

Wholesale Agents, FUTLER & CRISP, 4 Cheapside; NEWBERY, 37 Newgate Street; MAW, SON & THOMPSON, 11 Aldersgate Street; FAWES & CO., Dublin; GOULDING, Cork; FOGLITT, Thirsk; and SANG & BARKER, Edinburgh. Agents for the Colonies required. Apply, with reference, to B. J. JAMES, 15 Union Bank Buildings, Ely Place, London, E.C.

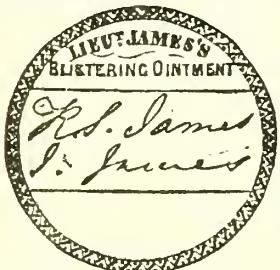
JAMES v. JAMES.—LORD ROMILLY, the Master of the Rolls, on February 23, 1872, declared "that I had an equal right with other members of the Inventor's family possessing the receipt to make and sell this Blister."—R. J. JAMES.

ESTABLISHED 1833. HORSES.—LIEUT. JAMES'S BLISTER.

CAUTION.

The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER.

The Messrs. Barclay & Sons, 95 Farrington Street, London, and Messrs. Raimes & Co., Edinburgh, Liverpool, and York, are now and have been Agents 45 years.



AGENTS:—Sutton & Co., 10 Bow Churchyard; W. Edwards & Son, 157 Queen Victoria Street; Newbery & Son, 37 Newgate Street; Evans, Lescher & Evans, Bartholomew Close; Burgoyne, Burbidges & Co., 16 Coleman Street; Lynch & Co., 171A Aldersgate Street; W. Mather, Farrington Road, London, and Manchester; Tidman & Son, Wilson Street; Sanger & Son, 150 Oxford Street; Millard & Sons, 40 Charterhouse Square; Corry & Soper, Shad Thames; A. A. Campbell, Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Manchester; Apothecaries' Company, Virginia Street, Glasgow; Boileau & Co., Bridge Street, Duhlin; McMaster & Co., 121 & 122 Capel Street, Dublin; Hunt & Co., 17 Westland Row, Dublin; Clarke & McMullen, Victoria Street, Belfast; D. Galbraith, Londonderry. And by all Chemists, in Pots, 1/6, 2/9, and 5/-.

COLONIAL AGENTS:—MELBOURNE and WELLINGTON: Felton, Grimwade & Co.; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. & Co.; DUNEDIN and AUCKLAND: Kempthorne, Prosser & Co.; CALCUTTA: Smith, Stanisstreet & Co.

W. H. JAMES, Sole Manufacturer, STANFORD, FARINGDON, BERKS
Advertised in "Bell's Life" 45 years. Beware of Spurious Imitations.

CATTLE MEDICINE.

ESTABLISHED MORE THAN FIFTY YEARS.

CORNER'S PINE'S DEVONSHIRE OILS

For Outward and Inward Application, is the best and cheapest oil for any ailment. Stock is liable to, and no stable, farmyard, or shepherd should without them.

In Sheepshearing, for Cuts, Sores, or Sprains. Lambing.—Invaluable to the Shepherd during lambing, for Colds, Inflammations, Cleansing, Udder-ill, Scour, &c.

For the Fly and Maggot in Sheep.—Nothing can surpass their value in summer for healing the worst Sores caused by same time invigorating the growth of Wool.

Cattle and Horses.—As an Emulsion or Dressing, for Bruises, Swellings, Sprains, SWOLLEN UDDERS of Cows, the S Internal and External Inflammations, Butts, &c., Wounds, any kind. WINE SIZE, 2s.

Sole Proprietor, RICHARD COOPER,
WELLINGTON, SOMERSET.

*** Anyone vending an article purporting to be PINE'S DEVONSHIRE OILS, with his Signature on the bottle, will be proceeded against by the Proprietor, who will supply by all Wholesale Houses, of whom Bills, Post Cards can be had.

SCOUR IN LAMBS CURABLE BY THE DEVONSHIRE COMPOUND.

This Preparation has not been equalled for its immediate cure of this fatal disease in Lambs, and is quite a difference to the Devonshire Oils. In Bottles, 2s. each.

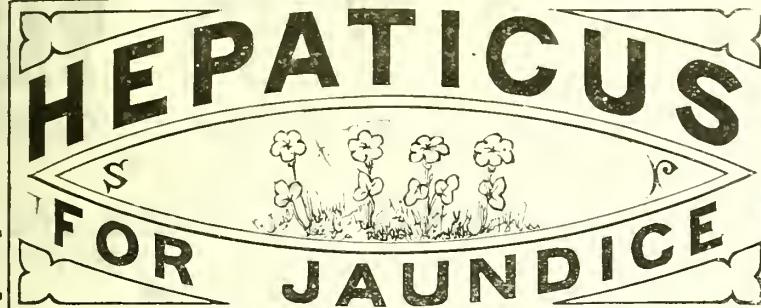
TESTIMONIAL.—Teddaburrow, Heywood.
"Dear Sir.—The DEVONSHIRE COMPOUND you sent me I have used in Lambs, with complete success in each case; I therefore recommend it to you, as it is a useful medicine, having lost fifteen Lambs before I used the compound. JOHN

Mr. R. Cooper, Wellington.

THE WONDERFUL HEALTH RESTORER!

Biliousness.
Indigestion.
Weakness.
Sick Head-Ache.
Loss of appetite.

Nervous and
Dyspeptic
Affections.
General Debility
Spasms,



ND ALL COMPLAINTS ARISING FROM A DISORDERED LIVER!

It quickly cures the above disorders of however long standing, PURIFIES AND CLEANSES THE BLOOD, and gives to the system a healthy tone. NO CHANGE OF DIET IS REQUIRED. Those with weak constitutions may take with entire confidence, it being adapted to all ages of either sex.

Sold in Bottles 2s. 9d. each.

In all countries this Medicine is invaluable, but more particularly so in the Tropics, India, and all Hot Climates, and we particularly call the attention of Shippers and our friends in the Colonies and Abroad to it.

For Terms apply to the Proprietors,—TOMLINSON & HAYWARD, Lincoln, England.

Trade Mark "Hepaticus for Jaundice" and an Hepaticus Plant as illustrated above.

THE "GLYCERINE DIP"

S TIE BEST FOR SHEEP AND LAMBS. NON-POISONOUS.

An Invaluable PREVENTION and CURE of SCAB, Effectually Eradicates TICKS or FLEAS, RED LICE, INSECTS, and other PARASITES infesting the Skins of Sheep and other Quadrupeds; Destroys MAGGOTS, renders the Skin Healthy after attacks by the FLY; it Cures and Prevents FOOT and MOUTH DISEASE, FOOT-ROT, and other Contagious Diseases; Heals WOUNDS, and is especially useful as a DRESSING for CUTS during and after the process of SHEARING; Greatly promotes the GROWTH of the WOOL, as also Increasing the Weight and Improving the Quality of the Fleece.

Can be used with Cold Water.

The "GLYCERINE DIP" is an excellent Wash for Horses (cures Harness Galls and Sore Backs), Cattle, and Dogs, and is Curing all kinds of Skin Diseases and Sweetening the Skin.

GLYCERINE DIP

None is Genuine unless bearing this
Trade Mark.

GLYCERINE DIP

Sold in Tins of 5 lbs. and 10 lbs., and
Drums of 20, 30, 40, 50, and 100 lbs.

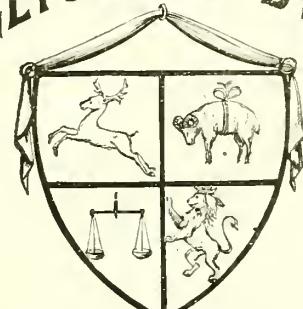
Price 6d. per lb.

1 lb. for every 5 Sheep or 6 Lambs.

BEWARE OF IMITATIONS & FALSIFICATIONS.

CAUTION.—We have the sole right and Proprietary of this Title and Mark, and we shall at once commence actions against any person or persons imitating, or otherwise pirating them, and we beg to caution Merchants and Buyers against such imitations.

TRADE MARK.



TRADE MARK.

SOLE PROPRIETORS AND MANUFACTURERS,

TOMLINSON & HAYWARD, Lincoln, England.

TESTIMONIAL from NICHOLAS LOWE, Esq., ALTAMIRA, Mercedes, Buenos Ayres, October 22, 1880.

To Messrs. MOORE & TUDOR.—In reply to your letter of the 18th, I am thankful for your congratulations on the sale of my wool at \$1 per ar. I have sold another lot at \$140, and I attribute the success of placing wool worth these prices in market having sold the flocks of Scab. There are several remedies more or less efficacious and cheap. I use only the "Glycerine Dip" impeded by you, and I am well satisfied with the result it gives. I have no objection to your making the fact public. My neighbour, Mr. William Cleary, also uses the "Glycerine Dip," and he obtained a Silver Medal Prize, at the Paris Exhibition of 1878. Several others who use the same Dip are satisfied with it, and promise to continue patronising the "Glycerine Dip."

Applications for Agencies invited in those countries where we are not already represented.

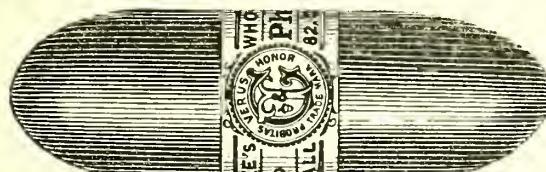
DRUGS, CHEMICALS, PHARMACEUTICAL PREPARATIONS.

GABRIEL & TROKE,

Who: sale and Export Druggists and Manufacturing Chemists,
82 CITY ROAD, LONDON.

GABRIEL & TROKE'S

REGISTERED CAPSULED HORSE BALLS,



Manufactured solely by GABRIEL & TROKE,
WHOLESALE DRUGGISTS, 82 CITY ROAD,
LONDON.

MANUFACTURERS OF ALL VETERINARY PREPARATIONS, EVERY KIND OF
VETERINARY INSTRUMENTS AND SUNDRIES.
SAMPLES AND SPECIAL QUOTATIONS FOR LARGE BUYERS.

These Capsuled Balls are most
convenient and safe and well adapted for export,
keeping good in any climate. They are put up in
Boxes of 1 dozen each Capsuled Balls of the most
approved formula on hand and private receipts faithfully
and accurately dispensed. Shipping orders
promptly and carefully executed, and at lowest market
prices. Price Lists of a very extensive character in
the most handy referable style on application.

COOPER'S

HEP DIPPING POWDER

Is soluble in Cold Water, and should be used in
preference to any other Dip,
TICK, FLY, SCAB, AND FOR ALL OTHER
HEEP DIPPING PURPOSES.

his Dip has been in use upwards of 35 years, and has
not been equalled by any other; it is of uniform strength,
not strong, the wool, and is equally good as a Summer or
Winter Dip. It is especially recommended for Dipping Lambs,
as a certain Cure for Scab.

Packets to Retail at 1s. 4d. each, for 20 Sheep.
Directions in English, Spanish, Dutch, &c., may be had free
on application.

COOPER'S

FLY POWDER

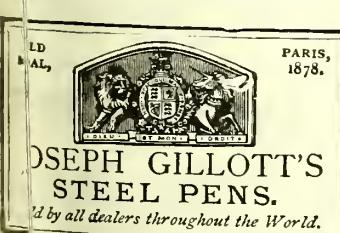
For Preventing the Fly Striking Sheep & Lambs,
Destroying the Maggot, &c.

1-lb. Packs to Retail at 6d., and 2½-lb. perforated Canisters to Retail at 1s. 4d.

Powder may also be had in Packets with a Label bearing
Retailer's own Name and Address, provided one gross or
more be taken at once.

Quantities loose at per cut.—Samples on application.

Other particulars may be had of the Proprietor,
JOSEPH COOPER, M.R.C.V.S., Chemical Works,
Berkhamsted, Herts.

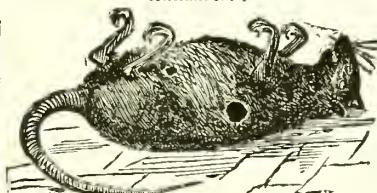


100 Rats destroyed for a Shilling by

BARBER'S PHOSPHOR PASTE.

WRAPPED NEATLY FOR THE COUNTER.
Handsome attractive Posters supplied; it conspicuously placed will command
constant sale.

Kills Rats, Beetles,
&c.
THE DEAD VERMIN
DRY UP
WITHOUT SMELL.



3d., 6d., 1s., 2s., 6d., and 5s. Tins. Also

BARBER'S VERMIN KILLER.

SOLD THROUGHOUT THE WORLD.

Kills Mice upon the spot. In packets, 3d., 6d., and 1s.
Be not deceived with worthless imitations. Observe the Name!!!

The VERMIN KILLER sent free by post at the following prices:

2d. 3d. 6d. 1s. 0d.

1s. 0d. 1s. 8d. 3s. Od. 6s. Od. ... Per Dozen.

The PHOSPHOR PASTE, at same prices. Carriage paid per
rail for enclosure to any Wholesale House, or direct, for quantity of either
Paste or Killer.

Special arrangements are made for Sole Agency with Chemists.

WORKS. SALISBURY: ESTABLISHED 1848.

Special Quotations to Shippers. Supplied by all the London Wholesale Houses.

ESTABLISHED 1873.

FRANCIS J. W. POLGLASE

(Successor to the Tyne Vale Chemical Company),

TYNE VALE CHEMICAL WORKS, FORTH BANKS, AND SKINNER BURN ROAD,
NEWCASTLE-UPON-TYNE.

MAKER OF

ETHER { PURE, for Medicinal Purposes.
METH., for Ice Making, &c., &c.
METH., Trebly Refined, for Photographic Collodion, &c.
Quotations on application.

ESTABLISHED



1835.

ESTABLISHED



1835.

THE ONLY PRIZE for Confectioners' Machines at the International Exhibition
of 1862; Paris, 1867; Lima, Peru, 1872; London, 1873; and Philadelphia, 1876,
was awarded to

L. COLLIER,

WELLINGTON WORKS, River Street, ROCHDALE,
MANUFACTURER OF ALL KINDS OF
MACHINES FOR CONFECTIONERS AND BISCUIT BAKERS.

An Illustrated Catalogue sent free on application.

"HUNTER'S" INFALLIBLE VERMIN DESTROYER

"The Best Extant."

The enormous sale last year of this old-established article, and the few specimens of testimonials below, stamp it as undoubtedly "the best extant." It is very neatly and very carefully put up throughout, and is indeed a most satisfactory article in



"CANNOT BE EXCELED."

From Mr. Smith, Chemist, Glasgow:—"I have not kept any other Vermin Killer than yours for the last four years. It is the best I ever sold."

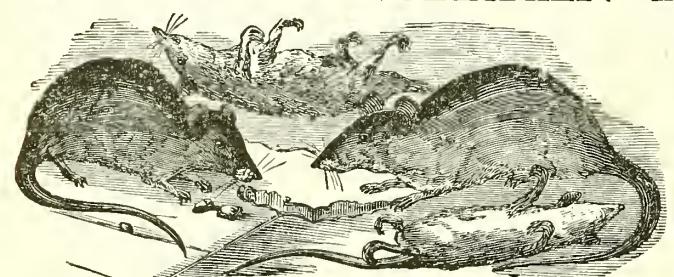
From Mr. Geo. Eagle, Merrickville, Sydney, Australia, to Mr. Mitchell, Druggist, Pitt Street, Sydney:—"Sir, I promised to let you know how 'Hunter's Vermin Destroyer' acted. Its effect was wonderful; in one night it destroyed all the rats and mice about my house, which was swarmed with them."

From Mr. A. Billington, Chemist, Wakefield: August 28, 1878:—"Dear Sir,—Please send me a few of your Vermin Killer Registers. I can hear testimony to the deadly effect of your 'Killer,' having one night laid in my warehouse the contents of a 2d. packet, and found in the morning no fewer than forty dead mice."

Kept in Stock by all the Wholesale Houses in the Trade throughout the United Kingdom. Vide Trade List &c.

LABORATORY—WESTGATE & UNION STREET, DEWSBURY, ENGLAND.

BATTLE'S VERMIN KILLER. { Mice eat it readily, Die on the spot.



Has an immense Sale, and wherever introduced never fails.—Mice appear attracted to it as by magic, eat it readily, and die on the spot. Rats usually die in their runs.—Partridges and Vermin may be cleared at once, either from Stocks, Hives, or Sheds.

TESTIMONIALS.—Thousands might be published.

From Mr. THOMAS COLTON, Agent for Selby.—A friend of mine chased a Packet of your VERMIN KILLER last night, down to-day he called in to say that he had found fifteen dead, and had used part of a packet.—From Mr. EDWARD STURDY, Farnham, Surrey.—I duly received by post the Packet of your VERMIN KILLER, as represented in your advertisement. It speedily destroyed all my granary. I enclose 2s. for two more Packets.—Leeds, November 1857.—I have tried BATTLE'S VERMIN KILLER, and have found it effectual in clearing my premises of LARGE QUANTITIES OF RAT.

THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. aach.

SOLE PROPRIETOR:

Mr. J. R. BATTLE, Chemist, Lincoln, England.

No Chemist or Storekeeper should be without a copy.

CENT. PER CENT.

CRAVEN'S VERMIN POISON

In Packets, 2d., 3d., 6d., and 1s.

Chemists who have not yet tried "CRAVEN'S VERMIN POISON" are respectfully requested to send in for a sample.

SOLD BY MOST OF THE LONDON AND PROVINCIAL WHOLESALE HOUSES.

SAMPLES AND TESTIMONIALS POST FREE.

F. CRAVEN, Chemist, Batley Carr, DEWSBURY.

BOWLING & GOVIER,

(Late Partners with FILMER KIDSTON),

MEDICAL SHOP FITTERS & CASE MAKERS

Our friends are kindly requested to notice our REMOVAL to New Workshops, where alone our Special Class Manufacture can now be obtained.

THE ART JOINERY WORKS,

22 GUN STREET, BRUSHFIELD STREET, BISHOPSGATE, LONDON.

Thirty-five years'
Reputation.

every respi., proof of
which lies the fact of its having, although
not constantly adver-
tised—steely main-
tained its reputation
such, even since its
introduction to the tra-
and the blie, n
about thirty-five years
ago.

PAPIER-MOURE,

OR FRENCH CHEMICAL FLY PAPER.

per Thousand Sheets	...	...	...	...	...	...	...	21s. 0d.
packs containing 5 Sheets (3d.), per dozen	...	...	...	...	...	...	...	1s. 6d.
packs containing 10 Sheets (6d.), ,,,	...	...	...	...	...	...	...	3s. 0d.

10 per cent., and 5 per cent. Cash Monthly.

INSECTICIDE-VICAT.

Bottles	...	...	...	...	...	...	per dozen, 3s. 9d. and 7s. 6d.
Belows Boxes	...	...	...	...	...	„	3s. 9d.
Tin Belows	...	...	...	...	...	„	7s. 6d.

10 per cent., and 5 per cent. Cash Monthly.

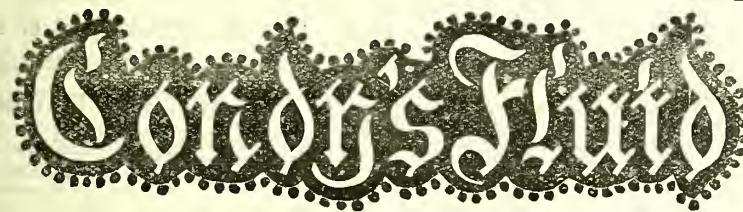
SOLE WHOLESALE AGENTS:

MAW, SON & THOMPSON,

7 to 12 ALDERSGATE STREET, LONDON.

Established 1877.

Established 1877.



THE
CHEAPEST
OF ALL.

RETAIL PRICES. TRADE PRICES.

	{	RED	...	...	1s. size, 4s.	Dozen.
		"	...	...	2s. "	8s. "
		"	...	...	4s. "	16s. "
	{	GREEN	...	...	6d. "	3s. 6d. "
		"	...	...	1s. "	7s. "
		"	...	...	2s. "	14s. "
CONDY'S OZONISED WATER		...	2s. "	8s. "			
"		"	...	3s. 6d. "	16s. "	"	

OF AL. WHOLESALE HOUSES.

WHOLESALE DISCOUNTS ON APPLICATION.

R CONDY & CO., DISINFECTING FLUID MAKERS,
FORD'S FOLLEY, LONDON, S.W.

CHLORIDE OF LIME.

IN WATERPROOF, AIR-TIGHT, & ODOURLESS PACKAGES. Protected by Royal Letters Patent.

Is neat and clean, and convenient for use. Being air-tight and odourless, retains its strength unimpaired.

IT IS ADMIRABLY ADAPTED FOR EXPORT, AND WILL

KEEP FOR YEARS IN ANY CLIMATE. Per Box.

24-lb. BOXES, containing 24 1-lb. Packages	.....	6/6
Ditto ditto	48 ½-lb. ditto	7/0
Ditto ditto	96 ½-lb. ditto	8/0
Ditto ditto	1-lb., ½-lb., & ¼-lb., assorted	7/3
Ditto ditto	1 Gross Penny Packages	8/0

50-lb. CASES, containing 50 1-lb. Packages	.....	13/0
Ditto ditto	10 5-lb. ditto	13/0
Ditto ditto	100 ½-lb. ditto	14/0
Ditto ditto	200 ¼-lb. ditto	16/0
Ditto ditto	1-lb., ½-lb., & ¼-lb., assorted	14/6

Also in 1 cwt. and ½-cwt. Cases, to meet the requirements of large buyers and the Export Trade.

Packed also in Jars, Bottles, Casks, and Cases to order.

The Patented Composition for Export Orders is specially prepared to bear any Climate.

A Liberal Discount allowed on all Orders of 5 Cases or 10 Boxes and upwards.

SPECIAL QUOTATIONS FOR CONTRACT OR LARGE ORDERS.

WHOLESALE AGENTS.

London : S. Maw, Son & Thompson ; Barclay & Sons ; J. Newbery & Sons ; W. Edwards & Son ; J. Sanger & Son ; Lynch & Co. ; Barvey, Shepherd & Co. ; Evans, Lescher & Webb ; Burgoyne, Burbidges & Co. ; Dury, Yates & Routledge ; Hovenden & Sons ; Wright, Layman & Umney ; Hearon, Squire & Francis ; Hodgkinson, Stead & Treacher. Liverpool : Evans, Sons & Co. Manchester : James Woolley, Sons & Co. Birmingham : Southall Bros. & Barclay. York : Raines & Co. Edinburgh : Raines, Blanchard & Co.

A SAMPLE BOX OR CASE CAN BE HAD FROM ANY OF OUR WHOLESALE AGENTS OR AT LONDON OR COUNTRY WHOLESALE DRUGGISTS. ALL GOODS DELIVERED FREE IN LONDON.

NATIONAL CHEMICAL CO., 29 Suffolk Grove, Gt. Suffolk St., Southwark, S.E.

INDISPENSABLE IN EVERY LAUNDRY.

HARROP'S
GLOSS & STIFFNESS
LinEN GLAZE
For starching collars, cuffs, and all fine linen fabrics. It is suitable for hot or cold water starch
REGISTERED TRADE MARK ONLY BY CHEMIST. CREWE
PREPARED W.H. HARROP.

Prevents the Iron sticking to the linen, puts the same amount of finish on the Linen as when fresh from the manufacturer's hand.

ALWAYS SATISFACTORY.

CAUTION.—Each Packet and bear
Registered Trade Mark as annexed.

Sold in 1d., 3d., 6d., and 1s. Packs, and
large Boxes, for Hotels, Laundries, &c.,
and 20s. each.

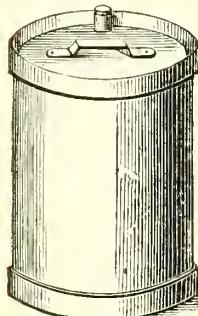
May be had Wholesale from S. MAW & SONS,
& TAYLOR, HODGKINSON, STEAD & TACHER,
BURGOYNF, BURBIDGES & CO., LTD., or
the Sole Manufacturer.

W. B. WILLIAMSON & SONS, Providence Works, WORCESTER.

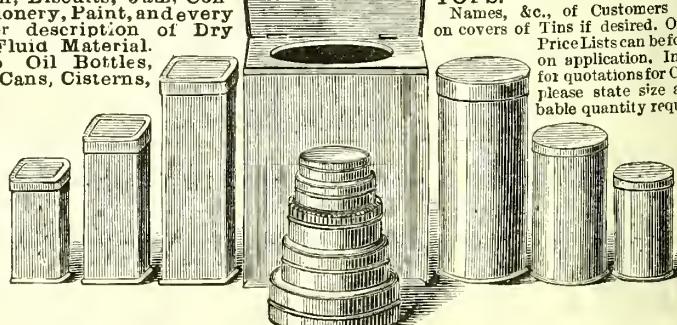
PROPRIETORS OF

The PATENT for making
PAINT TINS with LEAD
TOPS.

Names, &c., of Customers stamped
on covers of Tins if desired. Oil Bottle
Price Lists can be forwarded
on application. In writing
for quotations for Canisters,
Please state size and pro-
bable quantity required.



MANUFACTURERS OF
TIN CANISTERS to hold
Coffee, Mustard, Tobacco,
Snuff, Biscuits, Jam, Con-
fectionery, Paint, and every
other description of Dry
or Fluid Material.
Also Oil Bottles,
Oil Cans, Cisterns,
&c.



GEORGE TREBLE & SON,

Druggists' Shops Fitted and Furnished complete with
Bottles, Jars, Carboys, and
casks by contract.

Estimates
supplied.

RUGGISTS' SHOP FITTERS BY CONTRACT.

OFFICES—

72, 74, 76, 78, & 80 CRONDALL STREET.

Steam Works—

44, 46, 48, 50 & 52 WHITMORE RD., & BRIDGE WHARF, REGENT'S CANAL.

HOXTON, LONDON, N.

Agents—S. MAW, SON & THOMPSON, 7 to 12 ALDERSGATE, CITY.

V. J. LEMAIRE & CO.,
of 66 PENTONVILLE ROAD, N.,
Medical Shop Fitters and Show Case Makers,

HAVING PURCHASED THE WELL KNOWN BUSINESS AND STOCK OF

WILMER KIDSTON,

Offers the whole of his well-made and seasoned Stock of
HOT FITTINGS, SHOW CASES, SHOW JARS, CARBOYS, &c.,
Including the KIDSTON'S HANDSOME

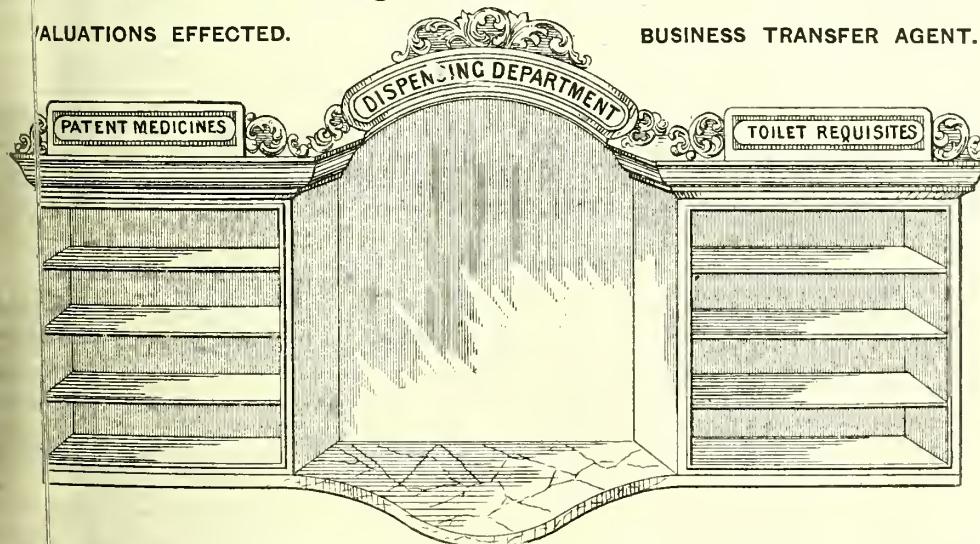
PRIZE DISPENSING COUNTER,

at a Great Reduction for Cash, to make room for New Goods, at the Show Rooms,
TREEST, BRUSHFIELD ST., BISHOPSGATE ST., LONDON.

R. TOMLINSON,
RUGGISTS' SHOP-FITTER, SHOW-CASE MAKER,
AND MANUFACTURER OF DRUGGISTS' SUNDRIES,
ST. PAUL'S SQUARE, BIRMINGHAM.

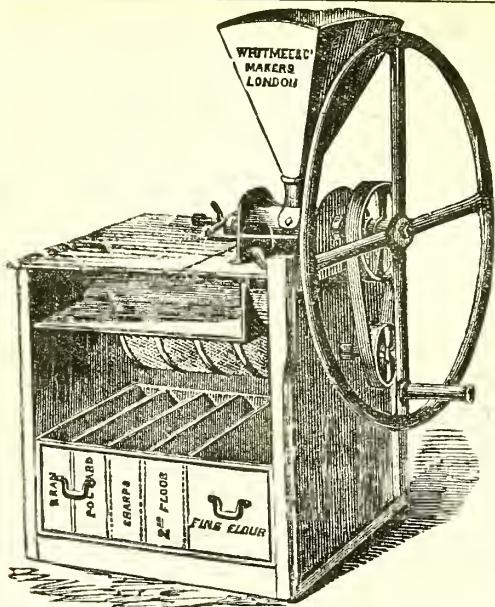
EVALUATIONS EFFECTED.

BUSINESS TRANSFER AGENT.



For Export or easy transit it is admirably adapted, as it takes up little space and can be fixed again in an hour. Folds into a Case 3 ft by 36, and 16s., 3s., of which is allowed if the empty is kept, and the full value allowed if returned carriage paid. Price, £8 10 0.

Fixtures for Sale, Jars, Globes, Drawers, Bottles, Counter Glass Cases, Shelves, &c.
SECOND-HAND FIXTURES OF ALL KINDS BOUGHT AND EXCHANGED.
will visit upon parties fitting up, to plan and advise. 2nd-class fare only charged.
FOR SALE, FIXTURES OR SHOP ABOUT SIXTEEN FEET BY TWELVE. WRITE FOR LIST.



JOHN WHITMEE & CO

The Sole Prize Medal of the International Exhibition
1862, was awarded to
JOHN WHITMEE & CO,
As Makers of the best
DOMESTIC FLOUR MILL

J. W. & Co. have also been awarded many other Prize Medals for their
CORN CRUSHERS, COFFEE and FLOUR MILLS. They make
and Machines for Grinding, Crushing, and Roasting Cocoa, Coffee, Chic
and other substances. Their French Burr Corn Mills, from 8 inches
4 feet in diameter, are very highly approved.

Prices of the Hand-Power Flour Mills, which Grind and Dissolve at
operation:

To Produce two sorts of Flour, besides Bran	7 0
" three	£8 10 0 8 1 0
" four	4 0

172 ST. JOHN STREET, LONDON, E

Is purely Vegetable,
Strong, Uniform, and
Bright.

M. MASTER, HODGSON & CO'S. IMPROVED FLUID EXTRACT OF ANNATTO

Is guaranteed to be prepared from the pure colouring ingredient of the Spanish Anna. Chemical Analysis and recent investigation prove that it possesses the highest degree of colouring power, perfectly clear and a superior and brilliant tint.

WARREN'S GENUINE "SWEET" ESSENCE OF REINE

McMASTER, HODGSON & CO., DUBLIN, Copyright Proprietors and Sole Manufacturers.

CAUTION.—None genuine unless the Copyright Proprietors' Name—McMASTER, HODGSON & CO.—is on each Label.
LONDON AGENTS:—Messrs. Barclay & Son, Crosse & Blackwell, Edwards & Son, Hovenden & Son, Lyne & Co.
LIVERPOOL AGENTS:—Messrs. Evans, Soos & Co., and Ayton & Saunders.

McMASTER, HODGSON & CO., 121 & 122 CAPEL STREET. DUBLIN.

THE UNIVERSAL TOOTHACHE SYRINGE

Retail,
6d. each.



Wholesale
4s. per dozen

Is a great improvement upon the "DENTAL SYRINGE," as the fluid is contained in a glass bulb, which enables its contents to be seen, and prevents liability to evaporation through long keeping or exposure.

THE UNIVERSAL CORN AND WART PENCIL.

1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a card.

N.B.—Both the above are exempt from Stamp Duty by permission of the Board of Inland Revenue.

CONCENTRATED WATERS.—One Ounce of these Waters added to Forty Ounces of Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions in the United States Pharmacopoeia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and a fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate. N.B.—Both the above are exempt from Stamp Duty by permission of the Board of Inland Revenue.

Distilled
Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions in the United States Pharmacopoeia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and a fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate. N.B.—Both the above are exempt from Stamp Duty by permission of the Board of Inland Revenue.

Aqua Anethi, Concent.	Per lb.	Aqua Cinnam. Ver. Concent.	Per lb.	Aqua Freniculi, Concent.	Per lb.	Aqua Piment Concent.	Per lb.
4/0		6/0		4/0		4/0	
Anisi, " "	4/0	Cassie, " "	4/0	Menth. Pip., " "	4/0	" Rose, " "	
Camphor, " "	4/0	Flor. Aurant., " "	8/6	Ang. Con., " "	6/0	Bose V., " "	
Cardi, " "	4/0	Flor. Sambuci, " "	8/6	Virid., " "	4/0		

The above are put up in Bottles of 1/2 or 1lb. and upwards, each of which has the Inventor's Protection Label on it.
Wholesale Agents—Hearon & Co., Maw, Son, & Thompson, Lynch & Co., London; Evans, Son & Crosse, Liverpool; Wooley, Manchester; Bewley & Draper, Hunt & Co., Dublin; Glasgow Apothecaries' Co., Edinburgh; Raimes & Co., Duncan Flockhart & Co., Edinburgh; Foggitt, Thirk; Goodall & Co., Leeds; Slinger & Son, York; McKesson & Robbins, New York. Special terms for large quantities may be had from

B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

ESTLÉ'S MILK FOOD.

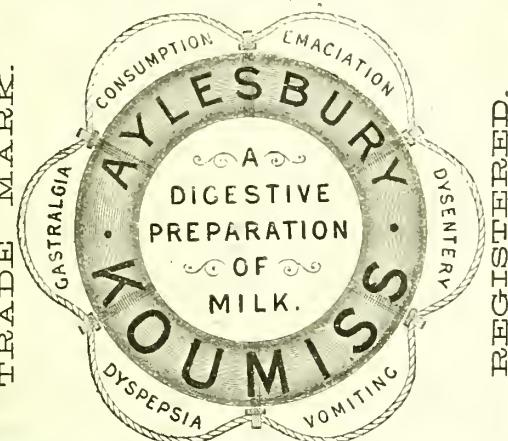


THE ORIGINAL
AND
ONLY GENUINE.

AD OF MERIT
International Medical
and
Exhibition,
1881.

PREPARED BY
AYLESBURY
RY COMPANY,
MITED,

TRADE MARK.



REGISTERED.

SILVER MEDAL

International & Colonial
Food and
Produce Exhibition,
1881.

St. Petersburgh Place,
BAYSWATER,
LONDON, W.

NOTICE & CAUTION.

RAID & CO.

Manufacturers of Essence of
beef under wrapper), and
ities for Invalids, have

REMOVED

OLE ADDRESS, No. 11
STANHOPE STREET, MAY-
FAIR, W.
d caution the trade to
of IMITATIONS.



GIBSON'S

COTABLE JUJUBES, VOICE JUJUBES, AND GLYCERINE PASTILLES,
up in 1lb. Decorated Tins with Glass Lids, TINS FREE, are now being inquired for by buyers from all parts of the world. They are
not surpassed in quality by any maker, and give entire satisfaction.

ICTED and HIGH-CLASS LOZENGES, of every kind.
Sent out in 2-lb. or 4lb. Bottles, Bottles Free; or in Tins, from 10 lb. upwards.

E JUICE TABLETS. PURE MALT TABLETS.

CID DROPS, AND BEST QUALITY BOILED SUGARS OF EVERY KIND.

GIBSON'S ORIGINAL CHLORODYNE LOZENGES.

NY SUGAR WORM CAKES, suitable for either children or adults. Have an immense sale,
keep in any climate, and please everybody. Manufactured by

RT GIBSON, Carlton Works, Hulme, Manchester, and 1 Australian Avenue, London.

Lists see application. Our Goods can be bought through any Wholesale or Export House in London. Indents sh'd be marked "Gibson's."

"THE MOTHER BRAND."



TRADE MARK (REGISTERED).

Sold in Cases of Two Dozen Tins.

Should any Chemist be willing to stock the above, Messrs. R. Lehmann & Co. will have much pleasure in furnishing him with samples, accompanied by introductory letter, for each of his medical men, free of charge.

Write to

R. LEHMANN & CO., Sole Importers, 106 FENCHURCH ST., LONDON, C.

MAWER'S TARAXACUM COFFEE,

PREPARED BY AN IMPROVED PROCESS BY WHICH THE VIRTUES OF THE TARAXACUM OR DANDELION ROOT ARE RETAINED IN A HIGH DEGREE

In Tins, 6d., 9d., 1/0, and 1/6.

Is by far the best in the market. Excellent in quality, neatly packed, cheap and economical, and a very saleable article.

BEWARE OF WORTHLESS IMITATIONS.

Wherever this superior preparation is introduced, Chemists find a ready and increasing sale.

AGENTS WANTED THROUGHOUT ENGLAND
AND THE COLONIES.

SOLD BY NEARLY ALL FIRST-
CLASS HOUSES.

BEWARE OF IMITATIONS

MAWER'S TARAXACUM COFFEE. — *Testimonial.* — "Lady Charlotte Hobart-Hampden has bought Mr. Mawer's Taraxacum Coffee for over a year and a half, and is able to say that it is much preferred here to the other kinds of Coffee, and that it is found more economical." — Hampden House, Bucks."

See Analytical Report by Professor ATTFIELD, F.R.S., &c., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, on *each tin.*



IMPORTANT MEDICAL TESTIMONY.—"I believe Mawer's Taraxacum Coffee to be a very useful preparation for persons suffering with weakly stomachs or sluggish and inactive livers. It is light and easily digested, and forms a pleasant and palatable beverage for breakfast or supper." — HENRY R. RUCKLEY, L.R.C.S.I., L.R.C.P.E., &c.

LONDON AGENT:
MESSRS. SANGER & SONS,
" BARCLAY & SONS,
" EDWARDS & SON.

TRADE MARKS
LONDON
EDINBURGH
ABERDEEN

MAWER & CO., HIGH WYCOMBE.

GOLD MEDAL, PARIS, 1878.

Medals—*Sydney, 1880; Melbourne, 1881.*

FRY'S COCOA EXTRACT.

Guaranteed Pure Cocoa only—deprived of the superfluous oil.

"If properly prepared, there is no nicer or more wholesome preparation of Cocoa."—*Food, Water, and Air*, DR. HASSALL.
"Strikingly pure, and well-manufactured in every way."—W. W. STODDART, F.I.C., F.C.S., *City and County Analyst*, Bristol.
"Pure Cocoa, from which a portion of its oily ingredients has been extracted."—CHAS. A. CAMERON, M.D., F.R.C.S.I., *Analyst*
for Dublin.

FRY'S CARACAS COCOA.

Prepared with the celebrated Cocoa of Caracas, combined with other choice descriptions.

"A most delicious and valuable article."—*Standard*.

FRY'S HOMEOPATHIC COCOA.

Highly approved and strongly recommended by many eminent members of the Medical profession, and is an article equally adapted for those under Homeopathic treatment, for invalids, and for consumers generally.

FRY'S MALTED COCOA

(PATENTED).

COMBINATION OF FRY'S PURE COCOA EXTRACT WITH
ALLEI & HANBURY'S CONCENTRATED EXTRACT OF MALT.

The *Lancet*, December 18th, 1880, p. 983.—"This is an excellent preparation of Cocoa and Malt Extract. It is dried at a gentle heat to avoid injury to the diastase; its dietetic and digestive value is beyond all dispute, and it is very agreeable in favour."

AMERICA—WHOLESALE AGENTS.

BOSTON—Bray & Hayes.	CHICAGO—Reid, Murdock & Fischer.
PHILADELPHIA—Githens & Rexsamer.	SAN FRANCISCO—Richards & Harrison.
MONTREAL—D. Masson & Co.	

FIFTEEN PRIZE MEDALS AWARDED TO
J. S. FRY & SONS, BRISTOL AND LONDON.



MAW'S SAUCE PIQUANTE

For Chops, Steaks, Cutlets, Hot or Cold Meat, Fish, Game, Soups, Gravies, Salad, Cheese, &c.

PRICE TO THE TRADE, 9s. & 15s. per doz.
10 per cent. and 5 per cent. Cash Monthly.

S. MAW, SON & THOMPSON, LONDON

MUSTARD.

FINCH, RICKMAN & CO.'S
Genuine Qualities

Are made from the finest mustard seeds only. Their compounds, as manufactured for upwards of a century, are guaranteed free from all ingredients imparting spurious heat, and are therefore equally suitable for both table and medical purposes.

6 BROKEN WHARF, UPPER THAMES STREET,
LONDON.

FINEST ICING AND KALI SUGAR.

SAMPLES ON APPLICATION TO

W. HOSKIN,
SUGAR GRINDER,
52 NEW ST., HUDDERSFIELD.

PURE SOLUBLE COCOA.

VAN HOUTEN'S COCOA

Is the only guaranteed Pure Soluble Cocoa, better and cheaper than any other Cocoa, Cocoa Extract, or any Chocolate.

The British Medical Journal, March 27, 1869, says:—"Van Houten's Cocoa is admirable. In flavour it is perfect, and it is so pure, well prepared, and rich in alkaloid," &c., &c. See also the Lancet, &c.

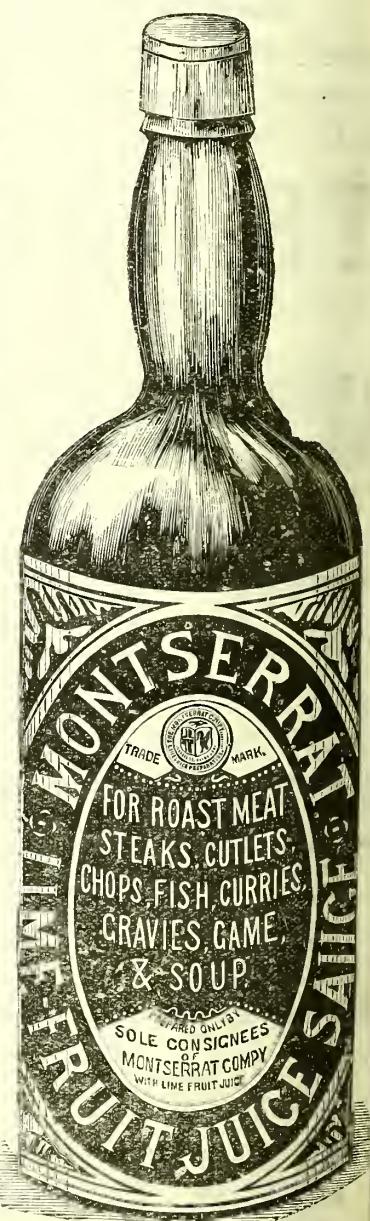
Sold (full weight) in 1-lb., ½-lb., and ¼-lb. Tins, at 4s., 2s. 1d., and 1s. 1d. Sample Tins, sufficient for a family, free of charge, through your Grocer or Chemist.

Sole Consignee—H. ESCHWEGE, 6 & 7 Coleman Street, London, E.C.

INDEX TO ADVERTISEMENTS,

See Pages 21 and 22.

THE CHEAPEST AND BEST SAUCE.



CHEMISTS' TEA AGENCY.**KEL & DALRYMPLE'S**

BROKEN-LEAF TEA, 1s. 8d. per lb.
A MONEY SAVING TEA. ABSOLUTELY PURE.
from some of the finest India and China Teas. Produces
a stronger, richer, and cheaper than most whole-leaf Teas.
where unrepresented, throughout the United Kingdom.

KEL & DALRYMPLE'S

INTERMEDIATE TEA, 2s. per lb.

RICE EVER SOLD. Great strength and a most useful
a large consumption. Recommended to all who wish to
a. Agents appointed, where unrepresented, throughout
to Kin.

LKR & DALRYMPLE'S TEAS.—

APPOINTED, where unrepresented, throughout the

Pectus and Samples Free on Application.
154 and 155 WHITECHAPEL ROAD, LONDON.
head office. Bankers, the National Provincial Bank of

WELL-KNOWN "LONDON TEAS"

ARE ONLY SUPPLIED WHOLESALE BY

**GEAT TOWER ST. TEA CO.
(LIMITED).**

Fine Tea . . . for Retail at 1/4 per lb.

Whole-Leaf Tea . . . 1/8 "

Broken Tea . . . 1/8 "

Two-Shilling Tea . . . 2/- "

wo-Shilling Indian Tea . . . 2/- "

Assam Broken Tea . . . 2/8 "

AD OTHER FINER BLENDS.

small Sample Parcel. The Quality never deteriorates.

A. HORATIO JONES, Managing Director.

Great Tower Street Tea Co. (Limited), 39 Great
Tower Street, London, E.C.**LLOYD RAYNER'S
5 CHEMIST'S SHOP**COMPLETE WITH ALL NEW GOODS,
INCLUDING**SHOWCASES, SHOP BOTTLES, JARS, &c.**

or Export suitable for any climate, including

Packing cases, and delivered to any of the

London Docks, free, £85.

above fittings are suitable for a Shop
14 ft long by 12 feet wide.**SALE AD RETAIL DRUGGIST'S, SURGEON'S.
AD DENTIST'S VALUER.**large Stock of Chemist's, Surgeon's, Dentist's, Grocer's
other Trade Fixtures, Office Fittings, Utensils, &c.

Fixtures Bought or Taken in Exchange.

SOW ROOMS AND OFFICES—

KINGSLAND ROAD.

FACTORIES—

DOWNHAM ROAD, KINGSLAND;

AND

TMORE ROAD, HOXTON, LONDON, N.

SEVEN PRIZE MEDALS AWARDED.

**GOODALL'S
HOUSEHOLD SPECIALITIES.****YORKSHIRE RELISH.**

THE MOST DELICIOUS SAUCE IN THE WORLD.

This cheap and excellent Sauce makes the plainest viands palatable, and
the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is
incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6d., 1s.,
and 2s. each.

CAUTION.—On each Yorkshire Relish Label is a Willow Pattern Plate,
and name, GOODALL, BACKHOUSE & CO. No other is genuine.

**Goodall's
Baking Powder**

THE BEST IN THE WORLD.

Makes delicious Puddings without Eggs, Pastry without Butter, and
beautiful light Bread without Yeast. In 1d. Packets; 6d., 1s., 2s., and
5s. Tins.

**Goodall's
Quinine Wine**

The best, cheapest, and most agreeable tonic yet introduced. The best
remedy known for Indigestion, Loss of Appetite, General Debility, &c.
Restores delicate individuals to health and vigour. In Bottles, 1s. 1½d. and
2s. 3d. each.

**Goodall's
Custard Powder**

For making delicious Custards without Eggs, in less time and at half the
price. Unquailed for the purposes intended will give the utmost satis-
faction if the instructions given are implicitly followed. Sold in Boxes
6d. and 1s. each.

**Goodall's
Ginger Beer Powder**

Makes Three Gallons of the Best Ginger Beer in the World for 3d.
Is a delicious and invigorating beverage, possessing valuable medicinal
properties. It is cooling in its nature, and a most wholesome beverage for
both winter and summer. Sold in Packets, 3d. and 6d. each.

**Goodall's
Blanc Mange Powder**

Is acknowledged by all to be the most convenient and economical pre-
paration ever introduced, as, by its use a most Rich and Delicious Blanc-
mange may be produced in a few minutes at a trifling cost, and may be had
of various flavours, i.e., Raspberry, Strawberry, Lemon, Almond, and
Vanilla. Sold in Packets, 6d. and 1s. each.

**Goodall's
Egg Powder**

Acknowledged to be the only real substitute for eggs yet discovered. Its
action on Cakes, Puddings, &c., &c., resembles that of the egg in every
particular, enriching them in colour and flavour, rendering them most
wholesome and nutritious. One penny packet will go as far as four eggs; and
one sixpenny tin as far as twenty-eight. In 1d. Packets; 6d. and 1s. Tins.

SOLE MANUFACTURERS—

GOODALL, BACKHOUSE & CO., White Horse Street, Leeds.

A Monthly Price List of Druggists' Sundries, Patent Medicines, &c.,

can be had post-free on application.



GRIDLEY & CO.,

WHOLESALE ISINGLASS MERCHANTS,

Manufacturers of every description of Machine-cut for Wholesale Druggists.

Fine Cut Russian, 8/- to 13/6. Fine Cut Brazil, 2/9 to 3.

We guarantee our ISINGLASS to be absolutely pure, and warrant it to be manufactured from the finest quality imported; our process being simply to cleanse, roll, and cut.

Our well-known brand
of

PURE RUSSIAN AND BRAZIL ISINGLASS,

Packed in Sealed Boxes,
1 oz. to 1 lb.

is strongly recommended by the medical faculty for invalids, or persons of weak digestion, and particularly for those who are suffering or recovering from fever, dysentery, or any other disorder affecting the stomach or intestines, being a perfect non-irritant and highly nutritious. It is also superior to all other gelatinous substances used in our domestic economy, in the preparation of Jellies, Blanc Manges, &c., some of which pass under the titles of "Patent," "Refined," and "Gelatine."

Probably there is nothing that is more extensively adulterated than Isinglass, which is not Gelatine but a natural product, viz., the air-bladder of the Sturgeon, or fish of that class; whereas Gelatine is extracted from animal matter, and is simply refined glue.

RUSSIAN, 14s. 6d. per lb. BRAZIL, 6s. 8d. per lb.

To be obtained at these prices through any Wholesale Druggist or Druggist's Sundryman, and in wholesale quantities at the Works—BISHOPSGATE AVENUE, CAMOMILE ST., LONDON E.C.

HENRY WIGAN & CO.'S ISINGLASS.

IMPORTERS AND MANUFACTURERS OF
Brewers' and Druggists'
ISINGLASS.

HENRY WIGAN & CO.,
SWAN LANE, UPPER THAMES ST., LONDON.

THE
"BEE" BRAND
BOTTLING
DISPENSING & PARCEL
WAX.

1
PR
MEILS.
Specially
Warranted for
Export to
Hot Countries.

GEORGE WATERSTON & SON,
Manufacturers of Sealing and Bottling Wax, Wafers, and Office Muriatic Acid, &c., &c.
LONDON, 9 ROSE ST., NEWGATE ST. EDINBURGH, 56 HANOVER ST.

E. LAZENBY & SON, (6 EDWARDS STREET, PORTMAN SQUARE,) Sole Proprietors of the Celebrated Receipts and Manufacturers of the Pickles, Sauces and Condiments so long and favourably distinguished by their name, beg to remind the public that their labels are affixed to the choicest description of goods only, that every article prepared by them is guaranteed as entirely unadulterated and may be obtained of Grocers, Italian Warehousemen and others.

HARVEY'S SAUCE.—CAUTION.—The admirers of this Celebrated Sauce are particularly requested to observe that each bottle bears the well-known label signed "ELIZABETH LAZENBY"; this label is protected by perpetual injunction in Chancery of the 9th July 1858 and without it none can be genuine.

18 TRINITY STREET, LONDON. S.E.

Elizabeth Lazebny

20s. for a QUARTER-CASK, *i.e., 12½ GALLONS (CASKS FREE), of* TYRER'S "BOROUGH" KETCHUP.

The following Editorial Notice is taken from the "Chemists' Journal."

"We have thoroughly tested Mr. Tyrer's 'Borough Ketchup,' both in the laboratory and in the kitchen. Viewed under the microscope with power of 450 diameters, the 'Borough Ketchup' presents the appearance of a homogeneous dark brown liquid. Passed through a greased tipped little sediment was deposited. A microscopical examination of this deposit under the same power showed most conclusively that Mr. Tyrer's is free from the 'mashed up toast,' 'decayed fish,' 'mildew,' and 'broken twigs' found by Mr. G. Worthington Smith, the distinguished manufacturer of the common ketchup sold in London. The proof of the pudding, however, is in the eating, and whether taken alone or in sauces we can testify that Mr. Tyrer's 'Borough Ketchup' is delicious, and that it would puzzle the finest palate to discover any difference between it and brands in the market. As a legitimate article for sale, especially in the provinces, we heartily recommend Mr. Tyrer's pleasant condiment."

A Sample Gallon (bottle free) sent, carriage paid, within Carter Paterson's radius on receipt of 2s. 6d., or to any wholesale house in London for enclosure.

PETER TYRER, 70 Long Lane, Borough, LONDON, E.C.

CHEQUES AND P.O. ORDERS TO BE CROSSED, "CENTRAL BANK."

Please mention the paper.

NOTE THE PRICE

LIEBIG'S EXTRACT OF MEAT.

7 lbs	.. .. ..	49/- each.	|	½ lb. Jars	.. .. ..	45/- per doz.	|	2 oz. Jars	.. .. ..	12/4 per doz.
1 lb. lbs	.. .. ..	87/- per doz.	|	4 oz. do.	.. .. ..	23/3 do.	|	1 oz. do.	.. .. ..	6 9 do.

Prepared according to Baron Liebig's own Instructions.

10 lb. weight Carriage Paid. Packages Free.

Flavoured Extract of Meat, 6d. per lb. less.	Orders of 50 lbs. 7½ per cent. off.
--	-------------------------------------

A'st Beef, in 2 lb. tins, at 10/- per doz. Corned Beef, in 2 lb. tins, at 10/6 per doz. Mutton, in 2 lb. tins, at 12/6 per doz.

TE AUSTRALIAN (RAMORNE) MEAT CO., 9 & 11 FENCHURCH AVENUE, LONDON.

NOTE THE PRICE

NEW (1881) SEASON'S FINEST QUALITY

NORWEGIAN COD LIVER OIL

Specially Prepared and Filtered in the Cold.

NOW ON SALE. LOW QUOTATIONS ON APPLICATION.

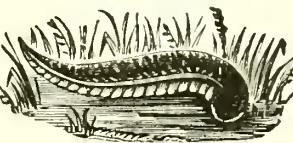
T. J. SMITH, 10 & 11 NORTH CHURCH SIDE, HULL, Importer.
PURVEYOR TO THE BROMPTON CONSUMPTION HOSPITAL, &c., &c.**JAMES C. CHUBB**

CONTINUES TO SUPPLY

BIST SEIDLITZ POWDERS,

Loose, att. per gross, and in boxes at 8s., 9s., and 10s. per doz.; Extra-coated Vit Powder, prepared with wheaten starch, in 1d. boxes, 7s. per gross, 2d. boxes, 14s. per gross, ½-lb. packets, 2s. 6d. per doz.; Prepared Fer's Earth, in 1d. boxes, 7s. per gross, 2d. boxes, 14s. per gross, and ½-lb. boxes, 2s. per doz., through the Wholesale Houses, or from OLD STAFF, LONDON, E.C.; and will forward list of articles packed by him on application.

HAMARO SPECKLED.

**LEECHES!**Warranted Healthy, Wholesale
and for Exportation, Direct
from Marshes.FITCH & NOTTINGHAM,
Leech Breeders,MARSELLES, & 55 PENTONVILLE
ROAD, LONDON, N.

All Orders by Post receive immediate attention.

**FINZELBERG'S
PEPSINE PORCI, P.B. OR P.G.**THE MOST RELIABLE & ALWAYS
UNIFORM.See "RITISH MEDICAL JOURNAL,"
July 30th, 1881.Apply to all Wholesale or Retail
Chemists and Druggists.FRAMED SHOW-CARDS
SUPPLIED.(Photograph of Steamer in a Storm—
very effective.)

KERMODE'S *Nausine* Regd.
The Cure for
Sea-Sickness.
of all CHEMISTS
PRICE 2/-

WHOLESALE AGENTS — Messrs. MAW, SON & THOMPSON, London; Messrs. EVANS, LESCHER & WEBB, 60 Bartholomew Close, London; Messrs. EVANS, SONS & CO., 56 Hanover Street, Liverpool. Sole Proprietor,

R. K. KERMODE,
Dispensing Chemist, CASTLETOWN, Isle of Man.**E. BOLLANS & CO.,**
CASTLE COURT, 17 ST. BRIDE STREET, LONDON, E.C.
Manufactory — RANELAGH WORKS, LEAMINGTON.

Publishers of Christmas and Birthday Cards,

MANUFACTURERS OF
PERFUMED SACHETS, VALENTINES,
AND ALL
FANCY STATIONERY for WHOLESALE and EXPORT.

Goods delivered free to any address in London.

SUGAR COATED PILLS

R. HAMPSON prepares the Pills of the Pharmacopœia, and a great variety of Pills from convenient formulae; also Pills from private formulae. The Pills are made of the best ingredients, and being quickly and perfectly diffusible, invariably give satisfaction. A Price Current, with formulae and sample, post free. Supplied direct or through the Wholesale Houses. Special quotations for large quantities.

205 ST. JOHN STREET ROAD, E.C.

**T. & F. J. TAYLOR'S
AÉRATED WATERS,
Newport Pagnel.**

ESTABLISHED 1835.

SODA, PTASH, SELTZER, AÉRATED (without
alkali), and LITHIA WATERS,
LIONADE AND GINGER ALE.Bottles protected by a Label bearing the Signature
of the Firm.Excellence of the Water certified by Analysis
Professor ATTFIELD, Ph.D., F.C.S.**LENN' FAMOUS MINERAL WATERS,**

"most efficacious Waters," from Winnebago, U.S.

Cure for Diabetes, Bright's. Dropsy. Liver, Bladder,

Stone in ladder, Dyspepsia, & all Kidney Diseases

MINISTER W.—"GLENN'S Water has done me immense good; in fact it has

made a new man of me."

EUPHORIA PILULIFERA," the great Australian Remedy for

Respiratory Complaints, Bronchitis, Asthma, Congestion of Lungs, Colds, Coughs, and

Coughs, &c. Ministers and others, of the remarkable efficacy of these

Remedies that have cured many, from

ENROSE, 28 ORTS ROAD, READING.

REVIEW

ILLUSTRATED HAND-
BILLS SUPPLIED.

THE ONLY PERFECT ENEMA OBTAINABLE

INGRAM'S IMPROVED HIGGINSON ENEMA AND SYRINGE APPARATUS

(BY ROYAL LETTERS PATENT).

Made without Seams or Ribs by our Patent Process of dipping in a solution of India Rubber, thus adding great strength and durability.

**CAUTION.—The only
Enema made without
Ribs.**



WARRANTED NOT TO SPLIT.

A.—Metal Pin Valve.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is perfectly smooth on the surface, will not become hard or sticky, will not leak, and will not admit air while injecting or refilling. Specially prepared to resist the heat of tropical countries.

The great superiority of **INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** over all others has given rise to VARIOUS IMITATIONS, and it has become imperative that the Patentees should, in order to PREVENT DECEPTION, explain the PROCESS OF MANUFACTURE OF THEIR ENEMA and the MODE OF MANUFACTURE OF ITATIONS thereof, as they have UNDENIABLE PROOF that INFERIOR ENEMAS are positively BEING SOLD as their "ADVERTISED" PATENT SEAMLESS ENEMA.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is made by a NEW PATENT PROCESS, viz.: By repeated dipping in a solution of India Rubber until the required substance is attained. This process adds greatly to its STRENGTH and DURABILITY, and, at the same time, dispenses WITH ALL SEAMS, which, as is well known, are weak points in an Enema. This improved mode of manufacture (the result of long study and experience) enables the Patentees to produce a PERFECT ENEMA WITHOUT SEAMS, thus overcoming the great fault to be found in all other Enemas, viz.: SPLITTING AND LEAKING, which has always been a source of trouble.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is fitted with IMPROVED VALVES, which prevent the admission of air with the fluid and CAN at any time BE REPAIRED, if necessary.

CAUTION.—Imitations of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA are made of several pieces of Sheet India Rubber, which are cemented together and aped in a mould, THUS PRODUCING RIBS ON THE SURFACE, and ENEMAS SO MANUFACTURED ARE ALWAYS LIABLE TO LEAK AT THE SEAMS, AND THUS TO BECOME QUITE USELESS.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA may be distinguished from ALL IMITATIONS by its ENTIRE FREEDOM FROM RIBS OF ANY DESCRIPTION on its surface, and by having an IMPROVED METAL PIN VALVE at the suction end A; and it is acknowledged to be the ONLY PERFECT ENEMA OBTAINABLE.

Patented in England, No. 1474, April 12, 1878; in France, No. 126,909, October 11, 1878; and in America, No. 212,939, March 4, 1879.

To be obtained of all Surgical Instrument Makers, Druggists' Sundriesmen, Chemists and Druggists, in the three following qualities:—

No. 1a. Highly Polished, in Red, Green, Blue, Black, or White.

No. 1b. Unpolished, in Red, Green, Blue, Black, or White.

No. 2. Unpolished, in Drab only.

All Imitations may be detected by the Ribs on the surface and are liable to split.

RECEIVED HIGHEST AWARDS, GOLD MEDALS, OVER ALL EUROPEAN AND AMERICAN COMPETITORS.
 Philadelphia, 1876. Paris, 1878. New York, 1879.
 Charleston, 1879. Melbourne, 1880. New York, 1880.
 Charleston, 1880. Matanzas, 1881. Atlanta, 1881.

SEABURY & JOHNSON,

MANUFACTURERS OF

India Rubber, Medicinal, Adhesive, Bunion, Corn, Court, Leather, Kid, Mustard, Spread,
 Pharmaceutical, and Surgical

PLASTERS

every description, in the most approved form; also Absorbent, Borated, Salicylated,
 and Cibulated Cottons, Antiseptic Gauze, Bandages, Cotton Wool, Gutta Percha Tissue,
 Lin, Oil Silk, Oil Muslin, and every variety of antiseptic and Surgical Dressings.

SPECIALTY:

PHARMACOPÆIA AND SURGICAL PLASTERS, IN INDIA RUBBER
 COMBINATION, POROUS AND SPREAD.

OFFICE AND SALESROOM, 1 AND 2 AUSTRALIAN AVENUE, LONDON, E.C.

TERMS FOR 1882.

CASH THIRTY DAYS.

Orders amounting to £25 nett will be subject to 20 per cent. discount; Orders of £10 nett 15 per cent.;
 Orders of £5 nett 10 per cent.; under £5 nett long prices will be charged, without discount; 1 per cent.
 for Cash if remitted for within TEN DAYS from date of shipment.

CARRIAGE ALLOWED OR PREPAID ONLY ON £25 NETT ORDERS.

OROIS PLASTERS.

Pack Two Dozen in a Box.

Size, 5 in. by 7½ in.

		per gross	£3 0 0
aconite .....	..	3 12 0	0
aconite and Belladonna .....	..	2 8 0	0
aica .....	..	2 14 0	0
ason's Capsie .....	..	4 16 0	0
tonia .....	..	3 12 0	0
lendula .....	..	3 12 0	0
psicum .....	..	2 0 0	0
lum .....	..	3 0 0	0
abanum Co. ....	..	3 0 0	0
anlock .....	..	3 0 0	0
nn .....	..	2 8 0	0
nn and Aca .....	..	3 12 0	0
nn and Belladonna .....	..	3 12 0	0
nn and Iole .....	..	3 12 0	0
teh, Burgur .....	..	2 8 0	0
teh and Caradires .....	..	3 0 0	0
or Man's .....	..	2 8 0	0
rengtheing .....	..	1 10 0	0
mach-Rhu .....	..	3 12 0	0
arming .....	..	3 0 0	0
itch Hazel .....	..	3 0 0	0
borans .....	..	2 8 0	0

SPECIAL FORMULÆ MADE TO ORDER.

Plain Sp and Porous at same rates.

YARD ROLLS.

Pharmacopœia and Medicinal

PLASTERS.

In India Rubber Combination, Porous or Plain Spread.
 Size, 7 inches wide by 1 yard long.

Aconite

Arnica

Belladonna

Blister, Cantharidal

Capsicum

Mercurial

Opium

Thapsia, French Formula

Aconite and Belladonna

Ammoniac and Mercury

Iron

Lead

Roborans

Sumach—Rhus Tox.

Warning

With Hazel

A full Line. Porous and Plain Spread at same rates.

SPECIAL FORMULÆ MADE TO ORDER.

MUSTARD PLASTERS.

Mustard Plasters, in yard rolls,

per doz. 0 10 0

Mustard Plasters, in ½ yard rolls,

per doz. 0 6 0

Mustard Leaves, 10 in tin. per doz. £0 10 0

Mustard Envelopes, 6 in paper, per doz. 0 6 0

Mustard Envelopes, 3 in paper, per doz. 0 3 0

MEAD'S

ADHESIVE PLASTERS.

Mead's Adhesive Plaster, Pliable and Antiseptic, 1-yard rolls, per doz. £0 14 0

Mead's Adhesive Plaster, in 5 yard rolls, per roll 0 5 0

Mead's Adhesive Strips, ½ inch, per doz. 0 14 0

Mead's Adhesive Strips, 1 inch, per doz. 0 16 0

Mead's Adhesive Strips, 2 inch, per doz. 1 4 0

Also in Special Widths to order.

Mead's Corn and Bunion Plasters, Medicated, per dozen, 8s.

Corn and Bunion Plasters, Round, Square, and Oval, all styles, thick and thin.

Court Plasters, 49 different styles, elegant and balsamic. A full Line.

Salicylated India-rubber Adhesive Plaster, Porous or Plain Spread, on Strong Cotton Cloth or Twilled Linen.

Breast Plasters, Belladonna, Lead or Phytolacca Decandra, 6 inches and 8 inches in circumference.

SPECIAL NOTICE.

Our NEW CATALOGUE OF SPECIALITIES is ready for delivery, and contains a complete List of our Preparations. A Copy will be sent to any Chemist on application to—

Yours very truly,

SEABURY & JOHNSON,

1 & 2 AUSTRALIAN AVENUE, LONDON, E.C.

The A. & H. "Tasteless" CASTOR OIL

(Oleum Ricini Insipidum, A. & H.)



A.D. 1715.

Pure and Absolutely Free from Odour and Unpleasant Taste.

The A. & H. Castor Oil will, we believe, be found free from the only drawback that has hitherto attended the use of, perhaps, the safest, surest, and most generally valuable aperient known. It is prepared from the entire seed, and the process employed yields a perfectly pure Castor Oil, possessing the well-known properties of the remedy, but free from the nauseous smell and taste, a result never before attained. The activity of this oil is in no degree reduced by the new method of manufacture. It is equal in this respect to the best East Indian Oil, and superior to the Italian, hitherto preferred as the least repulsive variety, and often sold as "tasteless."

THE LANCET of March 4th, 1882, writes:—"Messrs. ALLEN & HANBURYS have recently introduced a variety of Castor Oil, which seems likely to supersede the old-fashioned form, with which we are so familiar. Their 'Tasteless Castor Oil' is absolutely pure, is almost colourless, and is as free from disagreeable taste or smell as anything of the nature of oil can be. We have given it an extensive trial, and find that it is taken, both by children and adults, without the slightest difficulty, whilst its aperient effects are unquestionable. It possesses all the advantages that are claimed for it."

THE BRITISH MEDICAL JOURNAL, January 28th, 1882, writes:—"Although absolutely pure Castor Oil, it is so prepared as to be entirely devoid of smell, and to have none of the disagreeable flavour which characterises the ordinary varieties of this oil. Being free from the nauseating character which has so long formed an objection to the habitual use of Castor Oil, this Castor Oil does not leave a disagreeable after-taste, nor give rise to the frequently-experienced sensation of sickness common to the use of the old-fashioned oil. It possesses very full aperient properties."

THE MEDICAL PRESS AND CIRCULAR, March 15, 1882, say—"Messrs. ALLEN & HANBURYS have recently introduced a preparation termed 'Oleum Ricini Insipidum.' It is absolutely pure castor oil, entirely free of smell and disagreeable flavour, and therefore does not cause nausea and after-taste which are characteristic of the ordinary variety. I have had the opportunity of employing this 'tasteless' castor oil of Messrs. ALLEN & HANBURYS' in a public hospital on a large scale. Its aperient power is complete, and is fully appreciated by the patients, especially children, who, finding it quite tasteless, never raise an objection to its administration."

THE MEDICAL TIMES AND GAZETTE, January 7, 1882, write—"Messrs. ALLEN & HANBURYS have introduced a Castor Oil that is absolutely free from taste and smell, and have thereby earned the gratitude of multitudes of persons of all ages. That the oil is Castor Oil proved by its remaining physical and medicinal properties, but it is free from smell and taste as olive oil. It is, therefore, taken very much more readily, it does not produce nausea or after-taste; and, withal, it retains the analgesic properties of ordinary pure Castor Oil."

THE CHEMIST AND DRUGGIST, February 15, 1882.—"Pharmacists in no way justify their existence in the community better than by improvements in the preparation of useful medicines, rendering them less nauseant or more convenient for administration. By producing a tasteless and odourless castor oil Messrs. ALLEN & HANBURYS may be congratulated on having achieved a really notable triumph Their product truly has no trace of odour, and it is as free from taste as pure olive almond oil. It is rather difficult to exactly appreciate this fact, and it is probable that the present generation will hardly fully understand what has been done for them. Castor Oil has an evil reputation clinging to it, which it is impossible for any of us to forget as we approach it. It is only necessary, however, now to dismiss all prejudice from the mind, and a dose of castor oil need no longer inspire the dread which clusters round its name in every household."

Doses the same as of oil of the ordinary quality.

Sold ONLY in Bottles, bearing ALLEN & HANBURYS' Signature and Trade Mark, &c.

Retail	each	per doz.	Retail	1s. 9d. each	15s. 1d. per doz.
"	6d. ,,"	4s. 6d. ,,"	"	3s. ,,"	27s. "
"	1s. ,,"	9s. ,,"	"	9s. ,,"	80s. "

USUAL TERMS.

The above may be obtained through any Wholesale House, or from the Sole Manufacturers,

ALLEN & HANBURYS,
PLough COURT, LOMBARD STREET, LONDON.

P.S.—GENERAL LIST OF DRUGS AND CHEMICALS FREE ON APPLICATION.